CENTRAL AFRICAN ARCHIVES

OPPENHEIMER SERIES

NUMBER NINE

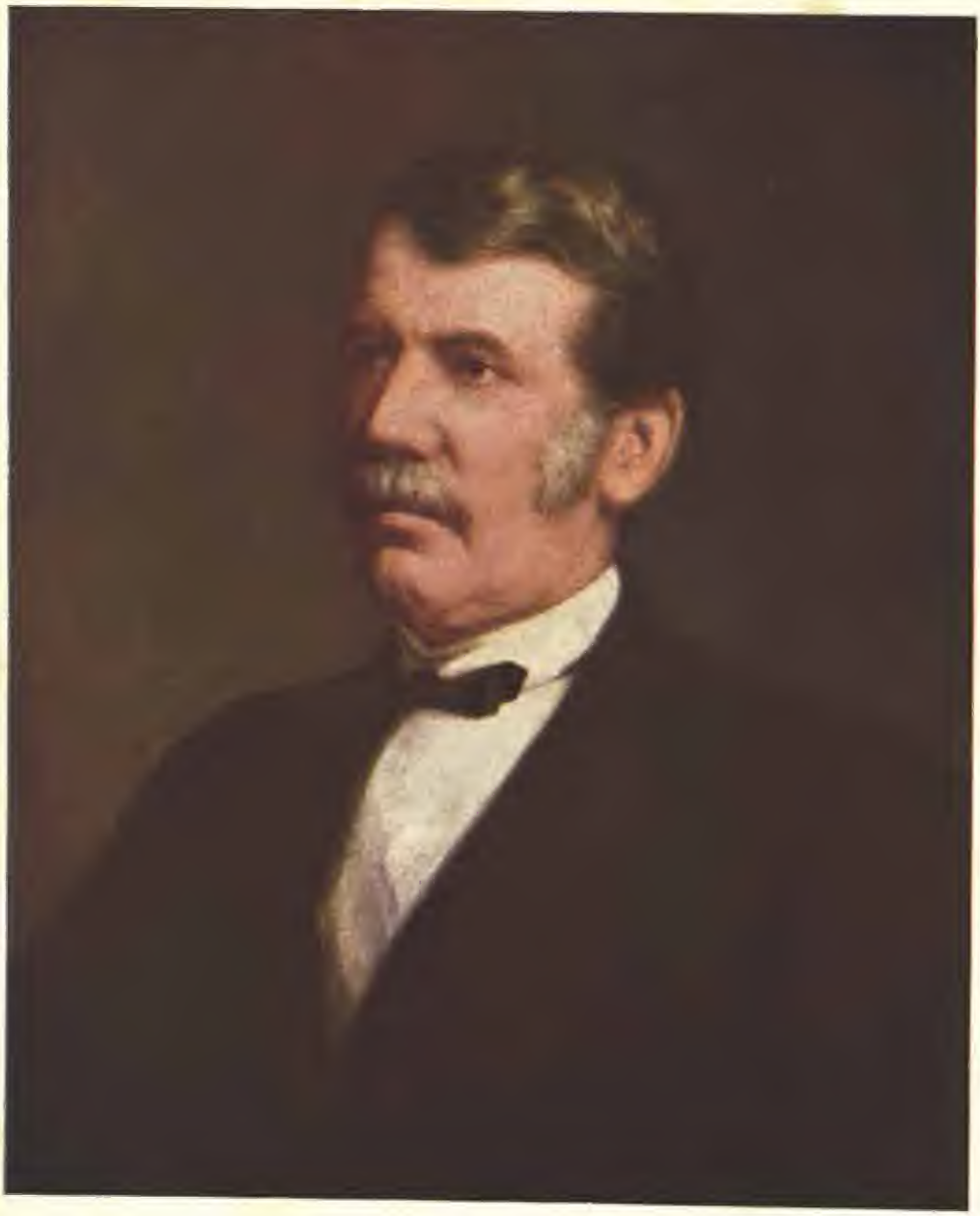
CENTRAL AFRICAN ARCHIVES

THE OPPENHEIMER SERIES

Editor in Chief: V. W. Hiller, O.B.E., Chief Archivist

ALREADY PUBLISHED:

1. *The Matabele Journals of Robert Moffat: Volumes I and II*
2. *The Matabele Mission*
3. *The Northern Goldfields Diaries of Thomas Baines: Volumes I, II and III*
4. *Gold and the Gospel in Mashonaland*, 1888
5. *Apprenticeship at Kuruman*
6. *The Zambesi Journal of James Stewart*, 1862–1863
7. *The Barotseland Journal of James Stevenson-Hamilton*, 1898–1899
8. *The Southern African Diaries of Thomas Leask*, 1865–1870



DAVID LIVINGSTONE

Reproduced by permission from an oil painting in the possession of the London Missionary Society

THE ZAMBEZI EXPEDITION

OF

DAVID LIVINGSTONE

1858-1863

edited by

J. P. R. WALLIS

VOLUME ONE

JOURNALS

LONDON
CHATTO & WINDUS LIMITED
1956

Printed for the Central African Archives
at the University Press, Glasgow,
and published by Chatto and Windus Limited
42–44 *William IV Street, London*

Contents

Illustrations

Map

Preface

THIS work is twofold in purpose. It commemorates the centenary of David Livingstone's discovery of the Victoria Falls on 16 November 1855, and it reveals a small part of a great collection of documents that came to the Central African Archives last year.

After Livingstone's death, his daughter, Mrs Agnes Bruce, collected her Father's papers from his many friends and these formed the basis of the first Livingstone biography, written by Dr William Garden Blaikie and published in 1880. Her son, Colonel A. L. Bruce inherited the papers and after his death in 1954 they became the property of his daughter, Miss D. L. Bruce.

Professor J. P. R. Wallis heard of the collection through the Very Reverend George Seaver, Dean of Ossory, who was himself engaged in writing a life of Livingstone. It was then, at the instance of Professor Wallis, that I approached Miss Bruce who consented to present the papers to the Archives.

Her gift constitutes one of the most important treasures of Africana to come to light in recent years. It includes letters to Sir Thomas Maclear, Astronomer Royal of the Cape of Good Hope, and to Sir Roderick Murchison, President of the Royal Geographical Society. There is also a mass of general correspondence, two journals dealing with the expedition through Bechuanaland and to the Zambezi before Livingstone crossed Africa for the first time, account books, testimonials, a part of Livingstone's library and water-colour drawings by Thomas Baines of the Zambezi Expedition.

Miss Bruce gave the collection in memory of her Father by whose name it will now be known. Its value for the study of African history and ethnology can hardly be overestimated. It constitutes one of the great collections of African manuscripts, and the Federation of Rhodesia and Nyasaland owes much to her farsighted and generous action. Her decision has placed her Great-grandfather's memorials in the country where his life work centred and where his heart lies buried.

I should also like to express my gratitude to Mr J. B. Ross, O.B.E., and to Dr Hubert Wilson, M.C., who both directly and indirectly have helped to make this publication possible.

V. W. HILLER
Chief Archivist

SALISBURY
SOUTHERN RHODESIA
30 *April*, 1955

Introduction

To a cursory judgment Livingstone's Zambezi Expedition may appear as the anticlimax to the triumph and resounding bruit of his great trans-continental journey of 1853–1856. In that pre-eminent adventure he stirred the civilized countries of both hemispheres to a pitch of admiration such as no exploratory feat had excited since the sea-rovers of Elizabethan times. Native will and invincible resolution had borne him up to an impressive pitch of achievement, carried through with all the odds of fortune and circumstance ranged against him. Then, for a breathless moment, the heave and surge of concentrated purpose seemed to lift him as if on the summit of a towering wave, a pre-eminent sign of the victorious possibilities latent in the human spirit, for men to marvel at as one of the wonders of his race. But as inevitably as, after its exciting instant of poise, the crested wave yields to the unremitted stresses weighing upon it, till it flattens out and bends downward in a reluctant curve to the weltering levels, so, seemingly, the generous impulse in the strenuous traveller sank beneath the pull of adverse forces into frustration and defeat. This is manifestly a superficial view, against which Livingstone's staunch purpose and tireless pertinacity stand as abiding instances of the power of mortal courage, the strength of mind and dignity of spirit which, fronting the challenge and omnipotence of destiny, command the wonder of all ages, heartening men against fear and despair. Such may man approve himself if only he have strength and firmness of generous purpose. In the right antique sense of the word, such a spectacle is tragic, what Milton calls 'a life heroic'. Yet it is human none the less, and simple, and indeed could not be truly tragic unless it were so.

Though this is not the place for anything in the least like a study of these qualities in Livingstone's climactic undertaking, yet something must be said of the traits that went to make up the essential Livingstone. Of these the best known is his fondness for walking alone, not secretively or furtively, but as one conscious of abilities that might help him to escape out of the obscurity into which he had been born, and justify himself in a less restricted way of life.

His natural intelligence warned him from the first that to divulge any such ambition would pull down upon him the ridicule of his fellows. Not that he could wholly escape their attentions. 'When I was a piecer' he confides to his brother-in-law, John Smith Moffat, 'the fellows used to try to turn me off from the path I had

chosen and always began with, " I think you ought " etc, till I snapped them up with a mild " You *think !* I can *think* and act for myself : don't need anyone to think for me, I assure you ". This must, according to my experience, be the way all through. I never followed another's views in preference to my own judgment—i.e. did a thing out of deference to another when I myself thought it wrong—but I had reason to forget it.'[1] Later he quotes with emphatic approval a saying of Dr John Philip to the effect that the good missionary would always go his own way. For one thing when travelling, a solitary white man, in the heart of Africa with none but Africans in his train, he could make his mistakes and no one be at hand to give him away. There were, he found, other advantages, as for instance, that he could hold himself aloof from missionary bickerings and feuds. To Emily Moffat, newly settled on the L.M.S. station at Inyanti, he warns, ' There is a good deal of fault-finding in the region where you go. Keep a genuine merry laugh ready for the half of it, and the other half lay up as lessons not to be imitated; and it's best to shew the effect of troublesome advice and injunctions by doing something good-naturedly opposite. . . . We must all think and act for ourselves.' It is to Emily's husband again that he confides, ' If I were to begin as a missionary I should most certainly choose to be alone with my wife. I may be differently constituted from you, but I never found two agreeing unless one were a cypher. In fact every one has his own way of serving the Master, and he will do it better in that way then in any one else's.'

In his early travels, when he was associated with Cotton Oswell, Thomas Steele, Frank Vardon, Mungo Murray and William Webb, he and they were good companions and became lifelong friends, but they were soldiers, gentlemen of good social standing, generous and understanding. Yet the first of these had left his own note on the ' little man ', as they affectionately called him: ' One trait in his character was to do exactly whatever he set his mind on. . . . It was not the *sic volo sic jubeo* style of imperiousness, but a quiet determination to carry out his views in his own way without feeling himself bound to give any reason or explanation further than that he intended doing so and so. It was an immense help to him, for it made him supremely self-reliant and, if it had not been, he never could have done half that he did.'[2] It was a useful quality in the way of life that Livingstone chose, but plainly, and as appears

[1] Oppenheimer Series, No. 2, *The Matabele Mission*, p. 42. The Livingstone letters in this volume, written to the man in whom the explorer most trusted, are of first-rate importance.

[2] Quoted in J. Macnair's *Livingstone the Liberator*, p. 90.

unhappily in passages of the Zambezi story, it could breed misunderstandings and jars.

Then there was his passion for travel, for a passion it was, no vague wanderlust, or love of globe-trotting, or mere vagabondage, or a restless urge to see places. He might have settled down on a more or less remote mission station in South Africa, as his parents-in-law had done, teaching, and studying native languages, and every so often rumbling off in his waggon with wife and weans to holiday for six or nine or twelve months in a rest and change and to renew supplies. But from the start he was for the far-flung trails and, with his usual bluntness, he maintained that the most effectual evangelizing method was for Europeans to push out into the untrodden ways among the tribes, to settle native teachers among them. Beyond question the Boer raid upon his house at Kolobeng was a wanton outrage, but it was not long before Livingstone could look back upon it as something not altogether unlike a release from the incumbrance of family possessions, leaving him the freer to follow his will into the unknown tracts of the dark continent.

There was, in those early days at least, what has been called the lure of Africa, but whether Livingstone felt and yielded to it is not certain. More probably it was only the impelling resolution to do something that would justify him in his own sight and in the eyes of his generation. And as time went by and he came to see that his own active and dynamic way of life seemed so much more solidly worth while than the sedentary routine of his stationary colleagues, his naturally robust self-confidence was confirmed, and what with this, and his determination to override the Boer ban barring the road to the north against the English, and the driving force within himself, he presently came to see the continent as his destined field of work. Then, when he had done what no other man had done, traversed Africa back and forth with the set purpose of discovering and proclaiming the possibilities of developing and civilizing it, it became in a real and effective sense something very like his kingdom, and he its champion and interpreter. Moreover, because he had a deep-seated and lively conviction that his people, the English, as he always called them, were the salt of the earth, and its best colonizers, there came to him visions of them settled on what he saw as the healthy central African highlands, to multiply its natural resources, bring trade and commerce and the force of example to uplift the backward natives, to christianize them, and free them from the curse of the slave trade.

Incidentally there is apparent in all this, and in spite of wide differences, a striking similarity between Livingstone's vision and

purposes and those of Cecil Rhodes. Both from unlikeliest beginnings came to be, each in his way, a peerless leader in the opening up of Africa, in its settlement by the multitudes unwanted in their native land, in the betterment of the African way of life and in making possible the opening up of great economic potentialities. Both were distinguished by complete selflessness, and though each knew his own worth and the value of the work to which he had dedicated himself, each stood above thought of riches and personal aggrandizement. And in the end both gave his life to his cause. They were alike self-absorbed, or seclusive, following visions that expanded by degrees, momentarily deflected by blunders and errors of judgment, but none the less holding on doggedly in the right line of purpose. Without eloquence or the gift of orderly and comprehensive exposition, each was wonderfully endowed with the power of inspiring others; often mistaken in their judgment of men, they attracted steadfast loyalties and yet, in setting a ' cause ' above self, they were too apt to forget the unobtruded claims of gratitude towards others.

Again like Rhodes, he drove himself without mercy, exacting more from himself than from any in his train, whether white or black. Fatigue he would never acknowledge, while as for sickness, he might sourly suspect it as a sign of slackness or disloyalty in his European colleagues, but saw it as an unforgivable weakness in himself, the leader in an inspired mission. Quite without fear, he took every kind of perilous situation with incredible sang-froid, straightforwardly, without bluster or truculence, as one sure of himself. This it was that gave him his power over the tribal natives, even those vitiated by contact with the Arabs or the baser sort of half-bred Portuguese. Such assured moral courage was not ordinarily an African trait, and it impressed them the more for that reason. It was so much a matter of course with him not to be afraid that when later, in his Zambezi journey, he heard of one of his Europeans blenching, he was moved not to scorn but to ridicule: the man was a muff, the schoolboy word saying all that need be said.

Then there was his amazing industry. He was never idle. As he went along he set himself to equip himself for the task. He learned Sichuana at the outset of his missionary career, and was always alert to pick up new words and dialectal differences, entering new terms into his many notebooks, and when he was on the Zambezi he acquired a working knowledge of Portuguese. It was one of his criticisms of his brother, after he had discovered Charles's unworthiness, that he had been too indolent to acquire a knowledge of either of these tongues. And wherever he went his senses were

alert to note whatever facts might serve the wider purposes of exploration.

On his first voyage to Africa, Captain Donaldson, commanding the *George*, had given him practical instruction in taking observations. 'Of a most agreeable nature, a well-informed shrewd Scotchman, but no Christian,' the captain had imparted 'all the information respecting the use of the quadrant, frequently sitting up till 12 at night for the purpose of taking lunar observations' with his pupil, who learned to lay aside the squeamishness bred of a pious Scotch up-bringing and not to wince under nautical luridness in speech. It steaded him well in the aftertime when, as his diaries show, he came up against the crudities of word and deed among the unregenerate, and could regard the things that mattered without being shocked, a useful discipline when he had to encounter the grosser horrors attending his Zambezi wanderings. For the rest, what with Donaldson's tuition and that of the Astronomer Royal at the Cape, Thomas, not yet Sir Thomas, Maclear, he became a capable computer of latitudes and longitudes, and industriously compiled and worked out observations which, with Maclear's aid, were worked up into the earliest attempts at scientific cartography in the central African field. At the same time he took bearings of landmarks to the like useful end, and Professor Frank Debenham in *The Way to Ilala* has dealt authoritatively with this aspect of Livingstone's assiduities, as well as with the traveller's interpretation of the physical structure of the continent and the effect of it upon the problems of communications. Little of scientific or possible economic interest escaped his eye and his notebooks, whether in zoology, entomology, botany or forestry, and natural products, used or neglected by the natives, that might be developed in connection with European industry or medicine.

In his search for a new mission site after the Boer raid on Kolobeng Livingstone had thrust north. The Kalahari desert was impossible and his discovery in 1849 of the fabled 'great lake' Ngami[1] was only a step on the way to the Makololo chief Sebituane. He overrated it when he wrote of it 'it is shallow and can never be of much value as a commercial highway'. Then too the sight of the Botletle or Zouga river gave a new direction to his tentative scheme. The relevant passage is well known, but will bear repetition: 'The notion that there might be a highway, capable of being traversed by boats, to an unexplored and populous region, grew from that

[1] It is of interest to recall that about 1847 Thomas Baines had made preparations to go in search of the same fabled water but, less happy than Livingstone in his partner, he was frustrated, and turned aside to the Eastern Province.

time stronger and stronger in my mind; and when we actually came to the lake this idea was so predominant that the actual discovery seemed of little importance.' The two subsequent attempts he made to reach his visionary goal, the 'well-watered country having a passage to the sea either to the East or West Coast' without which 'no mission could succeed', were almost fatal to his wife and children, and in the end he saw them home from Cape Town before he turned back alone. Sebituane had died during Livingstone's first visit to Linyanti but his successor, Sekeletu, though less worthy was no less friendly disposed. He and his Makololo had political reasons for their expressed willingness to leave the malarious Chobe marshes for the reputedly healthy highlands, if Livingstone would settle there with his family; for Mary, daughter of Mosilikatse's revered friend Robert Moffat, would be a safeguard against further inroads by the dreaded Matabele.

But first Livingstone must be assured of means of communication with the outside world, and first he would strike westward in quest of it. It is significant that he had already reported the existence of a slave market among the Makololo.[1] He says, with a singular credulity, that it had begun no earlier than 1850, and he apparently believed the people when they 'confessed that they felt a repugnance to the traffic, but they (the Mambari and Portuguese) refused cattle, and would only take slaves in exchange for cloth and guns'. If English manufactures could be introduced, then a legitimate trade might oust the lawless bartering of human beings. Hence his attempt to find a road for commerce from the Atlantic to the interior. But though he reached the western seaboard, where he heard the first inklings of fame and reward, he found no viable road for commerce. Yet there was still the Zambezi to be tried, and the eastward trail. He set off on 3 November 1855 and in a fortnight saw what he later named the Victoria Falls. In mid-January 1856 he was at the river's confluence with the Loango beyond which, unfortunately, he crossed to the south bank to avoid a grim mountainous barrier, striking the river again below Zumbo. By 20 May he was at Quilimane on the east coast, aglow with the thrill of an unparalleled exploratory feat accomplished. But by a cruel quirk of fate he had seen and heard nothing of the insuperable barrier of Kebrabasa cataracts and rapids. Native report told of one slight obstacle of the kind, the insignificance of which was confirmed by his own mistaken computation of the degree of fall in the river as it traversed the rift in the mountain barrier.

[1] Chamberlin, *Some Letters from David Livingstone*, p. 151.

He knew, of course, that what he had done was unmatched in African records, though only once, in a fleeting phrase to Murchison, did he allow the briefest glint of satisfaction to flash out. Indeed his vision had not yet come to him that was to inspire his next enterprise. Central Africa's geological and geographical riddles were his main preoccupations, with thoughts on native questions. These last moved him to draft a letter to 'His Most Gracious Majesty the King of Portugal' and on February 24th 1856, 'above Tete or Nunkue on the Zambesi' to make a fair copy. It begins

MAY IT PLEASE YOUR MAJESTY,

As I hope in a few days to be among Your Majesty's East African subjects I will recollect with heartfelt Gratitude the generous hospitality and cordial assistance afforded by both official and private Portuguese under your rule in the Kingdom of Angola, it has been suggested in my musings, while wandering across this broad Continent, in order to benefit the degraded population near its centre, that Your Majesty might not spurn an epistle from a mere private person, offered in a strictly private capacity, intended as this is to manifest my gratitude in a more substantial way than by ten thousand wordy thanks. It is really presumptuous to expect you to do that which I am unable to perform, but, feeling that it is much easier to beg for others than for myself, I have great confidence in your desires to imitate the virtues of many of your Royal ancestors, I entreat a hasty perusal of the following suggestions, and I also beg you will not trouble yourself to make any reply.'

It is authentically, characteristically Livingstone, well-intentioned and—perhaps a little oddly—respectful, yet, as he is careful to indicate, speaking out full and free for the benefit, not of himself, but of the backward Africans whose cause he now had proved his right to champion. So, very much as man to man, he ventures to deprecate the excessive addiction to trade among all classes in Angola and to show how what he calls 'the coloured Portuguese' might be 'weaned' from 'exclusive attention to commerce'. A 'vegetable wax', common at the Cape might profitably be introduced, so might coffee, cotton, sugar and oil but, most desirably, wheat. Not only would this last be economically worth while but 'the stamina of the race would be better developed by this grain than it is by the miserable starchy food obtained from the manioc'.

Yet, he continues, these and other additions to local agriculture would—and here the right Livingstonian accent is clearly audible—

be of none effect ' if not accompanied with the formation of a good road into the Interior '. He pleads for the appointment of superintendents to overlook the engineers, and applauds the integrity of the Governor Alexandrina de Cunha and Captain Lourenço Marques for their devotion and ' stern uprightness '. As for himself ' an eager desire to see any plan for the amelioration of the country which may be adopted, is the only reason I venture to mention ' these names.

Thereafter the pitch of the appeal sinks a little to deplore the ' amazing want of books ' and ' for very obvious reasons ' the ' absence also of Portuguese women in the Colony '. ' And ' he concludes, in a veiled allusion to the prevalence of slave labour, ' if any of these suggestions should lead to the formation of a middle class of free labourers I feel sure that Angola would have cause to bless Your Majesty to the remotest time '.

Four months later he reached Quilimane and his ' musings ' were beginning to focus into a potent vision to which a letter from Dr Tidman of the L.M.S. soon gave a new cogency. With ' many kind expressions of approbation ' his Board felt financially unable to aid ' plans connected " only remotely with the spread of the gospel " '. They foresaw in his scheme ' very formidable obstacles ' and no likelihood of their being able to enter upon 'untried, remote and difficult fields of labour '. Livingstone was taken aback, but he faced a critical position stoutly. Without a word of the fact that all he had done and undergone had cost the Society no more than his annual stipend of £100 and certain minute family allowances, he quietly ran over the reasons for differing from the Directors who ' from a sort of paralysis caused by financial decay ' shied at undertakings rising naturally out of the ' simple continuance of an old determination to devote my life and my all to the service of Christ in whatever way he may lead me in Intertropical Africa '. The ensuing survey of sixteen years in the Society's service is Livingstone at his best, modest, respectful and straightforward. What he had done had been with the approval of the Board, and he was ' at a loss to understand the phraseology ' of their letter.

That same day he put aside doubt and sat down to indite a second letter—a typed transcript covers four single-spaced foolscap pages. In it he dealt with the alleged difficulties. The Barotseland highlands were healthy, the Zambezi offered ' an excellent highway into the Interior ', and as for the people, the Makololo were ' thoroughly civil ' and, ' so far as life and property are concerned, the field is a safe one,' and ' much may be effected in the new region without any additional outlay on the

part of the society '. At the same time he makes it quite plain that his own mind was made up. With or without the Directors' support, he would return, and that speedily. ' It being absolutely necessary to get through this [Quilimane] delta during either April, May, June or July on account of its well known insalubrity, and also because I have a number of Sekeletu's people waiting for me at Tete, my stay in England must be extremely short.[1] I mention this in order that you may have as much of the short space as possible for any arrangements it may be desirable to make. I am at present waiting for a passage either to the Cape or Bombay and will transmit this by the readiest conveyance to England. Should this come to hand before myself you will oblige me by forwarding the enclosed note to Mrs Livingstone and giving her directions where she may find quiet lodgings in the outskirts of London. Excuse this trouble and

Believe me Ever Affectionately yours

DAVID LIVINGSTON.[2]

While it is not impossible that Livingstone might have felt some twinge of apprehension at the prospect of losing his sole means of livelihood, almost certainly he was influenced by a natural desire not to have his prestige tarnished by the shadow of dismissal by his Society. Already, too, he was moving towards a wider interpretation of ' missionary duty ' as something ' not so concentrated on those whose ideal is a dumpy sort of person with a bible under his arm '. ' I have laboured in bricks and mortar, at the forge and carpenter's bench as well as in preaching and medical practice. I feel that I am not my own; I am serving Christ when shooting a buffalo for my men or taking an observation or writing to one of his children. . . . And after having by his help got information which I hope will lead to more abundant blessing being bestowed on Africa than heretofore, am I to hide the light under a bushel merely because some will consider it not sufficiently, or even at all, *missionary?* Knowing that some persons do believe that opening up a new country to the sympathies of Christiandom was not a proper work of an agent of a missionary society, I now refrain from taking any salary from the Society with which I was connected.' So he was to write from Carlisle on 30 October, 1857, to a Miss

[1] A letter to his young Portuguese friend, ' José ', dated 1 November, 1856, on the voyage home mentions another reason for his speedy return to Africa, namely, his desire not to be forestalled by the expedition recently sent out by the Government under Burton and Speke.

[2] It is noteworthy that the explorer still used the shorter form of his surname.

Mackenzie, but long before that date he had foreseen the possibility of a break and had begun to feel that evangelism could not exclude or ignore, as preliminaries, exploratory surveys and plans for agricultural, commercial and political developments. Aboard H.M. brig *Frolic*, on 5 August, 1856, he wrote another of many lengthy letters to Sir Roderick Impey Murchison in reply to one from his as President of the Royal Geographical Society. It is here given in full because it shows the breadth and fullness of its writer's outlook, his strong practical sense, his bold and original imagination, as well as his frank directness in addressing an illustrious stranger.

Private

Sir Roderick I. Murchison

SIR,

As I concieve[1] that the future of the African Continent will be one of great importance to England in the way of producing the raw materials of her manufactures as well as an extensive market for the articles of her industry, I feel anxious to give a few hints which your influential position may enable you to turn to good account in occasional intercourse with merchants and travellers. For both I think the field peculiarly interesting and for all genuine hearted Englishmen as especially so, because, though capable by the fertility of the soil and abundance of water and labour of yielding an unlimited supply of agricultural produce, as cotton, coffee, sugar, indigo, oil, fibrous tissues, wood, etc, there is no probability that the future of Africa will present that rivalry in manufactures which even now enables the Americas to consume a large quantity of their own cotton, and which ended annually by a vast amount of foreign skilled labour, may yet materially diminish the supply of that commodity which England so imperatively needs. In reference to this subject, while possessed of a reasonable amount of complacency in the prosperity of every other nation on earth, I cannot help feeling something like annoyed that the trade of Angola, of Eastern Africa and of many parts of the Indian Archipelago, should have fallen so exclusively into the hands of our transatlantic brethren; for, while we can say (between ourselves) with truth that though our merchants are sometimes no better than they should be, they are, as a whole, decidedly the most upright and benevolent in the world. Esteeming highly, as I do, the English merchant and knowing that our country, in trying to bless others, will surely benefit herself, I would fain point out the cause of the American

[1] Livingstone generally reverses the normal order of 'i' and 'e' after 'c'.

success in these seas. I have never seen any prosperous trade but that of stores in the colonies. One seldom sees a shop devoted exclusively to one set of goods. The American ships may be likened to stores and the English to shops. The consequence is that, though they may go forth as whalers, and many of them do so, they never return clean, seldom without paying expenses. We saw several from Madagascar who went south in the summer in search of whales or sea lions beyond Desolation Island and, when the weather became too severe as the sun went North, returned to whale and refresh and trade at Madagascar and Eastern Africa. Having a general assortment of goods on board and the master being part owner, they visit many ports and islands, and they are ready to carry on barter wherever a market is found for tortoise shell, mother-of-pearl, seal skins, gum copal, gold dust, ebony, shells and curiosities, while the English master is bound down to a particular line of conduct, and cannot deviate, though he sees a profitable investment. It is not made his interest to be enterprising. The expenses of the refreshments are comparatively small when procured by common barter goods, *viz.*, beads, brass wire, rings, cotton cloth, Muskets and ammunition. We paid £2 for a bullock at St Augustine's Bay and the people would have been better pleased with a musket worth 13 shillings. When viewing sheep sold for a dollar each in money and at less than half that value in goods, I could not help wishing that our Whitby and Aberdeen whalers should share these luxuries and take that share of the fish which their hardihood deserves. I may be mistaken but fear my countrymen are not aware of how profitable this mode of whaling is. The Americans throw a large quantity of cottons into the markets on the East of Africa and the English goods come in the roundabout way of Bombay and Goa.

Africa presents also a wide field for the researches of scientific travellers, and it will be a long time before the remark of one of the ancients becomes obsolete, 'There is always something new from Africa.' The vine disease may probably find its way into the South and, if not symptomatic of a decay similar to that which precedes the disappearance of some races of man, may be remedied by adopting one or more of the native vines of the continent. There are three well marked varieties of grape bearing vines in the parts I have travelled over and, like the vegetation of the Desert, which is supplied with tubers, one of these has a tuber like those of asparagus every four or five inches along its horizontal roots, to serve, as the internal a[p]paratus of the camel, as reservoirs of nutriment in seasons of drought. There are so many wild vines in some parts

it looks as if Africa could be made a wine-growing country. The soil too is so fertile and well adapted for the growth of cotton, sugar, etc. And the people are so willing to engage in trade—witness the Makololo furnishing me with 27 men and cattle to open up the way to Loanda, and 110 to serve in a similar project on the East—that I intend, if permitted to return, to take some ploughs with me as a means of developing their native tendencies. I have an order from Sekeletu to purchase a sugar mill and the ivory sent for the purpose was given in this way: 'Take as much as you like: if any is left behind it will be your own fault.' I left 20 tusks at Quilimane, the proceeds to be sent back in case of my death or in case of my being prevented [from] returning.

I may venture to tell you, though I never enjoyed the honour of your acquaintance, that the London Missionary Society has thrown a cloud on my further progress by the intimation, in a letter I received at Quilimane, that the Directors are restricted in their power of aiding plans connected only remotely with the spread of the gospel. And that, though certain obstacles, as fever, tsetse, etc., should prove surmountable, the financial circumstances of the Society are not such as to warrant the hope that it would be in a position, within any definite period, to undertake untried remote and difficult fields of labour. As this is accompanied with many expressions of approbation of what I have accomplished and I have never had any difference with them, I suspect I am to be sent somewhere else, but will prefer dissolving my connection with the Society and follow out my own plans as a private Christian. This is rather trying, for, the salary being professedly only a bare subsistence (£100 per annum), we have in addition the certainty of education for our family and some provision for our widows. My future course will therefore mean the forgoing these privileges, and no one likes his family to be less educated than himself. Should I be unable to return I hope you will direct the attention of travellers to developing the rich resources of the country, to the native medicines, the Fruits of the forest, many of which are fine, and to the subject of Artesian wells for the South. I believe this latter subject feasible, for the strata on the inner side of the ridge dip in towards the valley, and the general direction of the winds is Easterly. As the mass of air is forced by the form of the country to ascend at least four thousand feet, the rarefication deprives it of its ability to carry moisture, hence the greater part of both rain and dew is deposited on the side of the valley and probably percolates through beneath the 'filling up' of erupted rocks, forming a reservoir on an enormous scale for artesian wells. The phenomenon of the actions

of the winds on the Eastern side of the continent is represented on a small scale by Table Mountain and what is called the Table cloth, which has often been described, only on the large scale. The mass of air comes in contact with the hot surface of the burning valley instead of the lower temperature which the table cloth meets with, and is sent aloft as still more rarefied air and increased capacity to carry moisture over the plains in the Valley where a deposit of the precious fluid would, as I knew at Kolobeng, be extremely convenient.

The subject of the African languages would be worthy of attention. It is beyond question but one family of languages throughout the negro country and, with the exception of the Bushman dialect, they are all cognate from the Equator to Caffreland. I have partial vocabularies of several, but fear I may not be allowed to complete them.

It was my intention to give you some hints on African fever which might have proved useful to travellers, but the mail is about to start, and I can only say that quinine, combined with an aperient, with vapour baths and low diet, I have found to be the best treatment. The quinine too is a preventative and never produces untoward symptoms if combined with a mild aperient. The other diseases to be guarded against are few, Rheumatism and some inflammation as pneumonia, but these are rare. Many European diseases are uncommon. Syphilis and impudence I found only near the confines of civilization. In the more central parts the people were remarkably kind and civil and free from disease.

Please accept of my hearty thanks for your letter of encouragement which I received at Quilimane and

Believe me yours most sincerely

DAVID LIVINGSTON.

I have a rough map which may give you an idea of the wonderfully well watered country through which I have travelled. It is only for friends until I receive the results of my observations from Mr Maclear. I shall leave it anywhere you may appoint after I reach England. A note sent to the Mission House, Blomfield St., London, will find me and let me know if a sight of it is acceptable. If you are too busy, take no notice of this please.

Here the besetting doubts as to his own and his family's future constrain him to recognize that he might have to remain with the L.M.S. and be sent elsewhere than Africa, against which possibility he offers Murchison advice for the guidance of future scientific exploration. But twelve days later he is telling Thomas Maclear

from Mauritius that sooner than go to any other outpost, ' I shall rather leave the Society and go back to whatever resources I can scrape together, though, from having, as a matter of conscience, abstained from any attempt to feather a nest and the Boers having fleeced me thoroughly, I am as poor as a church mouse.' To crown all because ' the grumbling party ' among the Directors demurred against providing for the family out of funds collected for foreign missions, Mrs Livingstone felt ' very uncomfortable ', for, after paying for the children's schooling, she had only £45 left for herself and was obliged to draw on her husband's meagre salary.

But the general enthusiasm that greeted his landing altered the position, and the Society joined in the floods of acclamation by organizing a great meeting of welcome, with Lord Shaftesbury in the chair. However, ' I have no wish to take any public advantage of their mistake, for such I suppose they now feel it to be ' he told Murchison,[1] ' But you will perceive the reason why I said I should be willing to adopt the plan you suggested of a roving commission.' And he continued, ' I have not the slightest wish or intention of giving up working for the amelioration of Africa. I have devoted my life to that and, if I could be put into a position where I could be more effective and at the same time benefit my children by giving them a good education, I should think it my duty to accept it.'

The story of his reception has been too often told to justify repetition here, how he was commanded to appear before the Queen, how nobility and notables sought his acquaintance, learned societies and chambers of commerce pressed about him, clamouring for him to address them. But he had to write the book which Murray wanted, offering him two-thirds of the profits and he had little taste for public speaking, besides that his throat pained him, and over and above all, his mind was upon Africa and upon the Makololo who were waiting for him to take them back to their chief Sekeletu. So 14 February of 1857 found him writing to his young friend José,[2] Colonel Nunes' nephew, asking him to ' detain the men until June when I hope to join them. Will you kindly ask your uncle to use his influence with them to remain waiting for me even later than June. . . . I have got all the things I promised to buy Sekeletu. . . . Tell my head cook Kanyata that he is to speak to all the others to have patience. . . . I have been invited to a great many places to lecture, and might make much money by going, but always refuse, as I have made a promise to my men and will if possible fulfil it.'

[1] From the Ship Hotel, Charing Cross, on 22 December, 1856.
[2] José M. Nunes, H. B. Majesty's Vice-Consul at Quilimane.

'Over head and heels in the book, and Ugh! writing a book is worse than travelling through swamps'. He found, like his father-in-law, that long isolation among Africans had affected his command of English, and in the midst of Chapter One he, at Murchison's suggestion, broke away to draft a statement to be laid before the Foreign Minister, the Earl of Clarendon, who gave him an interview. Nothing definite was decided on. 'He says he is sensible that I ought to be enabled to be more extensively useful.' That was in January, and in April he was optimistically hoping to have *Missionary Travels and Researches* out in May and then he would leave at once for Africa, with 'some sort' of official appointment. Clarendon appears to have been genuinely interested, while the Government felt that, in the face of the national enthusiasm, it could hardly hold back, especially as it had lately sent out Burton and Speke, and might, moreover, gain useful kudos by a not too extravagant gesture to encourage commerce, advance science and extend civilization. It seemed a safe gamble, and the Treasury allowed Parliament to vote £5000 for the undertaking. The Admiralty lent a hand and its Hydrographer, Captain, later Rear-Admiral, John Washington took the explorer under his protection in matters nautical. Further, since no one in the Foreign Office knew much about African exploration, Livingstone was allowed to take his own forceful way in organizing the expedition. Meanwhile existence maintained its exacting tempo. Cities bestowed their freedoms, universities and learned and professional societies conferred their honours, business and commercial bodies and individuals beset him for the advancement of their own especial trades and industries, till he could tell Murchison, 'I really would prefer to follow the quiet example of Miss Nightingale, for that I do admire.'

And all the time he, who did not know the meaning of fear in the presence of any overt danger, was haunted by that too sensitive dread of criticism which was the painful outcome of his solitary habit of life and was to turn so much to his future unhappiness. In the letter just quoted,[1] he confesses, 'I have been thinking since we parted that it may be better to defer the application for an appointment till nearer the period of my departure. I fear if I got it now my friends of the Mission House will make use of the fact to damage my character in the public estimation by saying I have forsaken the Mission for higher pay. I have refused to take any more from them, and wish to do my future work in as unostentatious [a] way as possible.' He goes on to tell that he had suggested, and

[1] To Murchison, 15 April, 1857.

Clarendon approved, 'a consulship to the Makololo and other central African tribes' which 'would enable me to do all I wish for both them and English Commerce'. Still he went cautiously, careful not to be off with the old love before he was on with the new, as he told Maclear a month later:[1] 'I am not yet fairly on with the Government but am nearly quite off with the Society, though', he adds, 'I don't mean to be a whit less a missionary than heretofore. I shall not accept the Government appointment if it trammels my operations, but Lord Clarendon does not wish to do so.'

Other worries beset him. 'The book is not yet published, but we are going on with it. A vile fellow has published one at 5/- on pretence of being mine. It is concocted of scraps from all quarters and deceives many.' Oblivion has dealt as behoved with this petty sharper but Livingstone's pen proceeds to another item of news, fraught, if he could have but foreseen the future, with far more pernicious consequences to his success and peace of mind: 'My brother has come to join me after 17 years in America.'

His projected expedition, with Government backing in cash, departmental aid and the title of consul for himself, posed new problems. Since Vasco da Gama's arrival at Mosambique no other power had disturbed Portugal's somnolent reign nor challenged her title to sovereignty. But now this dogged and forthright little Scot, perhaps as yet without realizing the implications of what he was doing, was bringing Portugal's prerogatives near to the forefront of diplomatic relations between Britain and her ancient ally. He had met the ambassador in London, the Count de Lavradio, and found him friendly, and they had talked about a visit to Lisbon to see King Pedro V, cousin to the Prince Consort, who out of his interest in the enterprise, had given the explorer a letter of recommendation to his royal kinsman. Clarendon gave him another. On his return to his lodgings in Sloane Street Livingstone sent a letter to the Count, dated 17 April, 1857:

MAY IT PLEASE YOUR EXCELLENCY

As I intend to devote some years to attempts in developing the Commercial resources of the fertile regions of Africa which I lately visited and it is considered advisable for me to request the protection of the King of Portugal in this great and difficult undertaking, I purpose to visit Lisbon as soon as my Narrative of travels is published. My objects are the promotion of commerce and elevation of the people of those distant

[1] 13 May, 1857.

regions, and I feel sure, from the high character His Majesty enjoys and from the estimation in which his intelligence is held in England, that his countenance in a work which must prove beneficial to humanity will not be withheld.

I shall let Your Excellency know as soon as possible the period when I hope to have the honour to wait upon you in Lisbon.

Feeling very strongly the desirableness of explaining to the natives who are waiting for me in the Province of Mosambique why I am necessarily detained in Europe, I shall feel greatly obliged if Your Excellency will repeat the order for the detention of my late African companions at Tete. I feel indeed very anxious about them, as no people so good for my purpose can be found near the Coast, whilst my visit to Lisbon and the retardation in the publication of my book render additional delay in England absolutely necessary.

In the letter to Maclear of 13 May already cited, Livingstone says, as it were in passing, between the mention of the ' vile ' forestaller and his brother Charles, ' I go to Portugal to get the countenance of the King.' Unfortunately an outbreak of yellow fever in Lisbon prevented a meeting that would have been brimful of interest to posterity.

To Lady Murchison he tells on 14 September of another development in arrangements that was to have unhappy consequences of its own. It grew out of an invitation to address the British Association in Dublin, ' a large meeting, the Lord Lieutenant taking the chair '. ' When the meeting was over General Sabine asked me if I saw any objection to the Association recommending the Government to send a steamer up the Zambesi. I replied that the only objection I knew of might be raised by the Portuguese. He said, we can let them find out that, and they resolved on sending a deputation to the Government.' Later he spoke to the Manchester Chamber of Commerce and ' they too resolved to recommend the Government to send out a steamer for the same purpose, and they have taken up the idea of developing the resources of the country drained by that river very warmly. All without my asking it, or even hinting that it ought to be done '. He was naturally and justifiably pleased and touched, as he was on the next stage in his journey when Glasgow made him a freeman and gave him £2000 ' as a Testimonial fund '. Soon after receiving the freedom of Edinburgh he would go to Portugal, ' for we must have free passage up the river, otherwise one cannot have much heart to developing the resources for the especial benefit of a people who themselves are scarcely free and who never give freedom to their colonies.'

Though he was ' dead tired ' of them, engagements multiplied. On 6 October he was telling Murchison of meetings to come with the Chambers of Commerce in Leeds, Halifax, Liverpool and Birmingham, ' in order to secure their attention to the development of the resources of Africa. I hope ', he continues, ' to be in London about the end of next week and see what definite arrangement can be come to with Lord Clarendon about the consular appointment. I propose to settle with the Manchester people for the employment of my brother to purchase up all the cotton the Africans can produce on the banks of the Zambesi, and hope for a roving commission myself. The Count de Lavradio wants, he says, to see me about going to Portugal before he leaves for the Continent and I wish to accomplish my visit there as soon as possible, and then bring all my arrangements to a head, so as to leave about the beginning of the year.'

But although he deferred his departure for Lisbon until 27 November the yellow fever still raged. Meanwhile on 5 November the Queen and the Prince Consort intimated from Windsor their willingness to accept a copy of his book. When it was published on the 10th, the entire edition was instantly taken up, so that reprinting began at once. Writing to tell Maclear the tidings, he ends, ' I finish my public speeches next week at Oxford. Had to telegraph to Bradford to-day to tell 3,500 that I could not come in consequence of a bad cold, which cold has something to do with my writing you now. It is really very time-killing, this lionizing, and I am sure you must pity me in it. I hope to leave in January.'

II

None of Livingstone's travels is so variously documented. Besides his own diaries, dispatches and correspondence, there are the records of Kirk and Baines, *The Zambesi Journal of James Stewart*,[1] W. C. Devereux's *Cruise in the ' Gorgon '* and the Universities Mission literature, while Sir Reginald Coupland's admirable narrative, *Kirk on the Zambesi*, ranges its material in amplest and most lucid fashion, especially valuable in its careful tracing of the history of the slave trade in Africa up to and, of course, including the 1857–1863 expedition. The rest of the present preliminary survey will deal, as far as may be, only with supplementary details.

With so much of the nation's economic, scientific and philanthropic attention concentrated upon it, and because it was sponsored and paid for by the Government, the expedition could no

[1] Oppenheimer Series No. 6.

longer be a one-man undertaking. Washington devised the first plan, ' on a generous scale, with a large staff of naval officers and everything else to match.'[1] Livingstone took alarm: it was too big, too costly, and he felt that it and he would be submerged under so much top-hamper. Availing himself therefore of Clarendon's promise, ' Just come here and tell me what you want, and I will give it you,' he drew up early in January a scheme of his own which the Minister took over entirely. He himself, the leader, was nearing the end of his forty-fifth year. His naval officer was Norman B. Bedingfeld, a commander in the Royal Navy whom he had already met, and liked, aboard the sloop *Pluto* at Loanda, a man with experience of the West African coast who had navigated the Congo. ' The fact of his volunteering to serve under me from a simple love of the enterprise in which we are to be engaged makes me entertain very sanguine anticipations of his efficiency,' he told Clarendon. But he did not know that the Commander had been twice court-martialled and on one occasion dismissed his ship ' on charges of contempt and quarrelsome conduct towards his superior officer '.[2]

His ' practical mining geologist ' was Richard Thornton, a student of the School of Mines, on the brink of his twenties, and strongly recommended by Murchison. The economic botanist was John Kirk, recently turned twenty-six. He had had medical experience in the Royal Infirmary, Edinburgh, with Joseph Lister, and with the Civil Hospital staff in the Crimean war, and had later travelled in the Mediterranean and the Levant. As ' general assistant ' or, as he alternatively describes it, ' general assistant and moral agent ' he took his brother Charles, eight years his junior, who had left his pastoral cure and his wife in New York State. The gap of seventeen years since last they had met was long, and the elder chose him, apparently, chiefly out of a strong sense of family loyalty, and took most of Charles's qualifications upon Charles's own testimony. ' He understands cotton and the machinery used in its preparation. He has travelled much and, having great experience, is fully qualified to act as moral agent. I place entire reliance on his temper and judgment in dealing with natives during the temporary absence of the other members from the central depot.' The dépôt, or ' iron house ' was to be under his charge, and he was to act as photographer and keep the magnetic records.

The ' ship engineer ' was George Rae, with professional experience of the North Atlantic run while the ' artist combining the duties of storekeeper ' was Thomas Baines.

[1] Coupland, *Kirk on Zambesi*, p. 77.
[2] P.R.O. letter from the Admiralty to Seymour Fitzgerald, M.P. 15 April, 1859.

Concerning this last choice Livingstone seems to have taken time to make up his mind, but he chose a good man, in his thirty-eighth year, one who followed travel and art from love of both, had woven trails over South Africa, up and down and sideways, between Port Elizabeth and the Limpopo, amplifying copious diaries with innumerable sketches, and painting and making friends everywhere. From 1851 to 1853 he had accompanied Major-General Somerset's force as an unofficial artist through the dangerous campaign against the Gaika chief Sandile, and from 1855 to 1857 had participated in the exploration of Northern Australia, under A. C. Gregory, who named a mountain and a river after him. Among other gallant feats he had sailed a longboat more than seven hundred miles from Croker Island to Albert River to keep an appointment with his leader. Here again his brush and pencil had been active. It was when he read his Australian notes and exhibited his pictures before the Royal Geographical Society that Livingstone met him, kept in touch and discussed with him the best kind of craft for use on the Zambezi, for Baines, a King's Lynn man, had grown up among ships and boats, and it was a task after his own heart to devise a suitable vessel. It was to be of metal, 30 feet long, 6 feet beam, weigh 260 lbs, be built in air-tight sections easy to carry and be able to take sixteen men. Washington approved it but Livingstone thought £200, including fittings, too dear. 'When we reached the Zambesi' Baines was to write ten years later,[1] 'it was matter of frequent regret that we had not some form of boat portable enough to be carried over rough country to rivers we wished to navigate.' The two whaleboats Livingstone took out and the pinnace he borrowed from H.M.S. *Hermes*, could not be so transported.

Then there was the ill-starred steam-launch *MaRobert*, designed and built by Macgregor Laird of Birkenhead after the pattern of river-craft used by him in his Niger explorations and made of a new untried kind of steel, reputed of such strength that plates only one-sixteenth of an inch thick would be strong enough. She was a paddle-wheeled flat-bottomed canoe, 75 feet long, of 8 feet beam and made in three water-tight compartments. Her horizontal high-pressure engine was of twelve horse-power and her furnace was devised to burn wood. According to her specifications she could carry thirty-six men and from ten to twelve tons of freight. She had two masts for sails, a tall slim funnel and awning-frames fore and aft. The Admiralty approved Laird's plans on 12 December, 1857 and on the following 5 February, five weeks after work

[1] In his *Shifts and Expedients of Camp Life*, p. 124.

began on her, she was put through her trials on the Mersey under Commander Bedingfeld's eye, and the report declared that under fifty pounds of steam, raised from wood fuel she did nine knots and drew only twelve inches of water—which seemed quite as satisfactory as could be desired. She was therefore dismantled and loaded aboard the steamer *Pearl*, lent by the Colonial Office to carry the expedition's personnel and gear as far up the Zambezi as Tete. Then she would proceed on her own mission to Ceylon.

Meanwhile on 8 February, 1858 the Foreign Office had formally notified him of his appointment as ' Her Majesty's Consul in the District of Quilimane on the Eastern Coast of Africa ' and added that his commission had been sent to Lisbon for the issue of the usual exequatur. He would act according to the general consular instructions but also ' furnish Her Majesty's Government with all useful and interesting information ' which he might be ' able to obtain as to Commerce, Agriculture, Navigation, or any other Branch of Statistics '. In the throng of last-minute business he did not have leisure to grasp the fact that the stipend assigned to him by an admiring Ministry for all he had done and was setting out to do for his country's credit and renown, was that of any commonplace sedentary pen-pushing holder of consular office. When at length he had time to realize this instance of official witlessness, he, though he cared less than most men for money, flared up and protested with right Livingstonian vehemence of indignation. The matter was at once set right.

Of the results of another incident in his English stay he was to hear nothing till more than two and a half years later. On 3 December, 1857, he visited Cambridge to stay with the Rev. W. Monk and deliver two addresses, the earlier, at two in the afternoon of the fifth, being the famous appeal in the Senate House. The building was packed as seldom before and he was received with volley after volley of cheers.[1] As he had once told Maclear he could not ' speechify ' and what he meant to say slipped out at his fingers' ends when he stood up,[2] but the press report is sprinkled with ' Laughter ', ' Repeated laughter ', and ' Cheers ' while at the close applause was sustained and ' perfectly deafening '. He began with an apology: seventeen years ago he had resolved to master African languages and had been speaking them so long that he was not very fluent in his own tongue.

He told of the Kalahari, Sechele, and the Boers whose ' slave system ' had constrained him to seek a station in the northern part

[1] *Cambridge Chronicle, Supplement*, 5 December, 1857.
[2] Livingstone to Maclear, 16 February, 1857.

of the great oblong basin which was central Africa, with its sides of old schist and the Zambezi breaking eastward through a fissure. Knowing that civilization and commerce must go together, and so that he might not sink to the level of those among whom he was to work, he sought a road for commerce with the outside world.

Swamps, sunless forests, tsetse and the slave-trade beset his quest westward to Loanda, making it clear that road-transport thither was out of the question, but, turning east again, he saw the value of the central highlands, the sterling qualities of the people, and the value of the Zambezi as a thoroughfare. At present the only traffic open to the natives was that in slaves, of which the poor folk had ' an unmitigated horror ' and, given the opportunity, they would gladly exchange English products for the products of their own fertile soil, cotton, flax, sugar, indigo, rice and the rest. Then came the stirring peroration. He begged to direct his audience's attention to Africa. In a few years, perhaps, he should be cut off in that country, but he hoped they would not let it be shut again. He would go back to endeavour to make an open path for Christianity and commerce: he left it to them to carry out the work he had begun. So he closed, amid perfervid applause. The response, in the sending out of the Universities Mission, how the news of it reached him so opportunely in the nadir of frustration and despondency, and how its collapse gave a crueller impetus to the Zambezi Expedition's last phase, is one of the impressive pinnacles of the ensuing story.

III

When on the cold damp afternoon of 10 March, 1858, with an occasional flurry of snow, Livingstone and his party steamed out of the Mersey aboard the Colonial Office vessel *Pearl*, they had with them not only Mrs Livingstone but her six-year-old son, William Oswell. Judged by normal standards of humane consideration it seems a callous act on the explorer's part to expose his wife and child to the all but certain perils of a hazardous journey and insalubrious climatic conditions. Yet Livingstone was a loving husband and an affectionate father, after his own dour fashion. But in his eyes his life-work, the opening up of Central Africa to commerce and civilization,—to use a phrase that strikes so brassily on modern ears, though to early Victorians it had a lofty sound—came first, and, after all, his wife had already made journeys far more dangerous than anything now expected, when she had traversed the Kalahari thirst-land and camped with her family by the malarial Ngami and

Chobe swamps. She had indeed suffered heavily in her own health, twice from paralysis, and had had to endure the death of an infant daughter while on these grim travels, but she was his wife, and her place was at his side in all ventures. Her mother, herself no stranger to the vicissitudes of mission travel, had indeed been so far moved by her son-in-law's calls upon her daughter's devotion as to overcome her usual awe of him and expostulate in strongest terms against his exposing her to such trials, but he had held on his way. Indeed the oddest turn of behaviour in this regard appears, not when he was undertaking journeys that beset his family to cruellest hazards, but when in 1851 he had made up his mind that, if he was to venture upon his trans-continental explorings, he must go alone. Then, when he escorted them to the Cape to put them on board a homeward-bound ship, he seemed momentarily to have felt the force of separation with something like frenzied passion, and he exclaimed against the harsh necessity that sundered them. 'To orphanize my children' he wrote, 'will be like tearing out my bowels, for they will forget me.' And when one of the little folk had asked when they would see their home in Kolobeng again, he had cried out in a wild self-pity, 'Never! the mark of Cain is on your foreheads: your father is a missionary!'—an outburst as unfair as it was melodramatic, for, after all, he was following his own convictions towards ends to which he had voluntarily dedicated himself.

But it would seem that he saw this new undertaking as beset by nothing like the former menaces. Optimism had blurred, or thrust into the background of memory, the gruelling experiences he had gone through on his famous journey, and he saw 'God's highway into the Interior', the Zambezi, in the light of the comparatively easy stretches of it he had traversed or seen on his eastward way to Tete. Of the grisly Kebrabasa he knew nothing beyond a vague report of a single rapid, which his eagerness took as an obstacle of but little account. It was as if, during his English sojourn, his broodings had concentrated on the goal, the settlement on the healthy Batoka plateau, the consummation of a life's devotion. What lay between had dwindled to comparative insignificance in the visionary radiance of a wonderful purpose already within his grasp. The *Pearl* would carry him, his family and his European staff up beyond the Zambezi delta, there the *MaRobert* would be put together and loaded, and with his faithful Makololo they would straightway ascend the river to the Kafue, on the fringe of the salubrious plateau. Here his iron storehouse would be erected, the centre whence he and his white companions would be able to

enter upon their exploratory labours to develop natural resources, open up trade, wipe out slavery and convert the tribes to a civilized way of life. Incidentally he would give his wife a home, she would have the company of one of her children, the others might come out in due course, and, over and above all this, she would give womanly grace and help to the men of the little isolated white community, for whom, as her husband so poignantly found after her death, her forethought had prepared means to enhance their comforts. Moreover, as in early days among the Bechuana, she might help her husband as teacher and nurse.

In the light of this reading of Livingstone's mind at the commencement of his voyage his taking of his wife and son shows almost as normally reasonable and secure. It also put a more intelligible construction upon the directions, oral and written, which he was at so much pains to give to his officers. Eight days out, he called them together and read them the instructions which he had drafted and the Foreign Office had adopted. Kirk's comment on them is shrewd: 'They seem sensible, but the most sensible part is that we are left very much to our discretion. The sum of them is—live at peace with the natives, obtain all the information we can, and try to begin civilisation among them by introducing arts and commerce as far as may seem proper.' Unmistakably the second sentence relates to the projected settlement on the interior highlands. So did the ample letters addressed to his several assistants, wherein he develops his own thoughts of the service each was to give. This is a matter of importance to the right understanding of the Zambezi story and for this reason, though in themselves over-profuse, they are given as an appendix.[1]

Within a month of sailing Livingstone found that his wife was pregnant and, more than a little startlingly, he notes in his journal under 9 April, 'This is a great trial to me, for, had she come with us, she might have proved of essential service to the Expedition in cases of sickness and otherwise, but it may all turn out for the best.'

Again he had in mind, not the journey to his land of promise, but the work to be done when established there. After he had sailed from Simon's Town for the Zambezi, he told his daughter Agnes,[2] 'Mama was so ill all the way from Sierra Leone that I was obliged to land her at the Cape, but no sooner did I go ashore to look for a room for her at the Hotel than I heard that Grandpa and Grandma Moffat were there, waiting for us. We were very glad to see them again, as you may be sure, after about six years' separation, and now Mama is to go up to Kuruman with them,

[1] Volume ii, pp. 413 foll. [2] Livingstone to Agnes, 7 May, 1858.

remain there for some time and then join me by going up through Kolobeng towards the Makololo country. . . . I parted with Mama on the first of May and sailed out of Simon's Bay while Mama waved her handkerchief as long as she could see me waving my cap.'

Read in the light of what actually befell the Expedition and of the horrors that had attended the long-suffering wife's earlier Kalahari-Chobe experiences, this sounds unbelievably heartless. But beyond question Livingstone, when he wrote so to his daughter, believed that the passage from the delta to the healthy highlands would be rapid and that, by the time his wife was able to take the road, he would have a home ready for her and doubtless either he himself or some other of his train would go down to escort her and the children on their way.

It is the disastrous disillusionment, shattering his confident assumption of a straightforward journey from the delta to his centre of operations on the Kafue, which gives his Zambezi records their pathos, even, perhaps, a tragic intensity of frustration. Fortune was to deal cruelly with one who asked nothing for himself beyond the satisfaction of being allowed to undertake and carry through a great mission for the welfare of his fellow men, and if, as after his previous exploit, he won fame and applause, none could fairly begrudge him so much mead of praise. He was to be allowed no farther than the threshold, and a Pisgah-sight of the kingdom of his vision. This is the black background against which the drama enacted itself and it does at least make it poignantly understandable. His habitual seclusiveness intensified his difficulties, for, had he been able to communicate his troubles, he would have found loyal and sympathetic co-operation from most of his colleagues. But, being what he was, lonely and with something of self-mistrust that made him shy and over-sensitive and given to brooding, he multiplied the odds against himself and magnified his own sufferings. He could not admit mistakes, except in misjudging others, thinking better of them, as his baffled spirit fancied, than they deserved. In the sunny morning of eager expectation he could praise his team, but under reverse of fortune he showed himself strangely ungracious and ungrateful. All of this adds up to the conclusion that he was human. His greatness is beyond challenge: the present state of development in Central Africa and its promise justify his faith and his sacrifice. But he had the defects of his quality, and the just recognition of these need not in any degree diminish his stature in the eyes of posterity.

Mischance met him from the moment he arrived off the Zambezi

delta, with its perilous bars, heavy surf, and its many mouths inadequately charted and with no local pilots to help in navigating them. That later two naval boats were capsized with heavy loss of life tortured him: men had died in trying to help him. Fortunately the *Pearl* crossed safely and easily, only to find herself in a labyrinth of water-ways with the main channel still to be sought, and, when found, proving too shallow for her draught. Hopes of a quick and ready passage to the interior wilted. Instead of personnel and stores being borne by her 300 miles up stream to Tete in a single trip, and transported thence to the base on the Kafue, where the ' iron house ' was to be set up for a dépôt and base of operations, the *Pearl* had to be released to go on her way to Ceylon and the store-hut was set up on Nyaka or Expedition Island, a bare forty miles from the sea in a pestiferous waste that soon infected the mental and physical efficiency of those whom their duties condemned to a sedentary life there.

Then the Launch, upon which now devolved the burden of the force's transport, began to disclose her mounting catalogue of shortcomings. Had the general trend of the story been less overwhelmingly disastrous, her ineptitudes might have given it a touch of wryly comic relief, and indeed some sense of this, mingled with abhorrence and disgust, drove her victims, including Livingstone himself, to call her the *Asthmatic*. She could not carry her stipulated load, her draught was excessive, her badly designed and wrongly placed furnace devoured tons of hard-won timber to little purpose, laden canoes could leave her panting far behind them, and before long her deck house let in the rain, her funnel was riddled, her hull was holed like any sieve, and in the end her company were glad to scramble out with her freightage and leave her to inglorious oblivion in the sands of the river. Her builder, the Nigerian traveller Macgregor Laird, had charged no more than £1,200 for her, and the Admiralty had approved her design and specifications and seen her passed as fit, but Livingstone, thinking only of easy river-communications and with his heart set upon a quick journey to his proposed headquarters, felt the vessel's defects as a deliberate betrayal, and as successive disillusionments closed in upon him, his denunciation of her maker rose in vehemence, till Laird was set down in good set terms as a hypocrite pharisaically disguising unscrupulous greed behind a mask of philanthropy.

The devastating climax came when, after well-nigh heart-breaking struggles to surmount the grisly obstacles of the Kebrabasa gorge, he had to fall back, baffled and desperately disposed to be wroth with himself and everything and everybody else. His diary and

Kirk's reveal the fierce doggedness with which both men flung themselves again and again against the awful odds, a story of concentrated will-power and sheer physical pertinacity not easily matched in the annals of African exploration. Perhaps the passage of the Kariba and Devil's cataracts in Stevenson-Hamilton's journals[1] comes nearest, but that was over forty years later, and both in numbers and equipment that party was in better trim. And for Livingstone the set-back meant so much more than the repulse itself. He saw and felt it—how deeply it is easy to conceive—as a mocking of his glowing vision and the flinging in his teeth of the promises he had made, or which had been read by others into his speeches and appeals in Britain. Nevertheless, though rebuffed, he was not beaten. Now, he could have said, as he wrote to Bishop Gray of Cape Town after hearing of Mackenzie's death, 'I will not swerve one hair's breadth from my work while life is spared.' 'Take a right course and go through with it, whatever men may say or think,' he adjured his eldest son Robert, and his personal writings are full of such declarations of his native resolution, as he put it in his native speech, to keep a stout heart to a stey brae. Wherefore, though at last he had to accept the bitter fact that the Zambezi could never be 'God's highway to the Interior', he would still press on, by whatever flanking turns he might discover, whether the Shiré or the Rovuma, and if this failed, he could rest his faith on the possibility of a station on the Shiré uplands or to the east of Lake Nyasa.

Taken completely aback by this breakdown in his confident first plan, he was placed at a distracting disadvantage, having not only to think for himself—though this was nothing, since he had been doing it effectively enough all his life—but for members of his staff who were still little known to him. The courses he had laid down for them in his letters of instruction were no longer relevant, and he did not know how to employ them. Except possibly for the engineer George Rae, he could have dispensed with the services of all of them, and carried on in his single-handed improvising way. Their presence distracted him and, when they proffered advice, it bewildered him. There is a pathetic glimpse of him set down by Assistant-Paymaster Cope Devereux in his diary under 27 February, 1862, 'I have rarely, if ever, seen a man so easily led as Dr Livingstone. He has been persuaded to disembark a number of sections [of the *Lady Nyassa*] to lighten the ship [the *Pioneer*] and without considering why and wherefore: so at six this morning we drop down with the current, giving up the little we had gained at the cost

[1] Oppenheimer Series, No. 7.

of so much fuel, time and labour. Again, at 9 A.M., when the ship had been got alongside the bank and everything in readiness to rear sheers, etc., the doctor is again advised to change his mind, and thinks we had better not get anything out, and, finally, an hour afterwards, determines to land as much as possible.'[1] His unhappiness in a plight so uncongenial is something that can be felt, and brings up the force of what he once wrote to his brother-in-law, John Smith Moffat, ' If I were to begin as a missionary I should certainly choose to be alone with my wife.'[2]

Then again, on top of this, lay the burden of the climate, with its effect on health and, worse still, on nerves. ' Bad health and a touch of fever is nothing, were it not for the bad humour it puts any one in,' Kirk notes, and Livingstone, before he left England[3] and speaking apparently out of the depths of slight experience, counselled, ' I would advise you also to insist on a good large ship. Coop men up in a miserable tub and then, " alas, they quarrel." Of course they do, and ought to do. The only fault I can find with them is that they don't abuse the right persons, but each other.' When the turn of events enabled him to put his axiom to the proof, he found after the departure of his naval commander, that his assistants, except one, his own brother, agreed well together. The defect lay in leadership. There was none to create a team spirit in the company. Indeed it is a point that presently dawns on the reader that the leader's journals contain so few personal—as apart from official—references to his assistants, unless they have incurred his displeasure. It would seem as if, when once his advance into the interior was balked, and he could no longer employ them as he had designed, he lost interest in his staff, and there are signs that at times he was unaware whether they were with the expedition or away.

Young Thornton, still in his middle twenties, was well on the pestiferous overland trudge to Tete that was to prove fatal, before Livingstone knew he had gone.

Of the three dismissals, that of Commander Norman Bedingfeld needs no mention: the journals, dispatches and letters give enough, and somewhat too much of it. Thornton's case is different. He was a youth, barely twenty, if so old, when Sir Roderick Murchison brought him to Livingstone's notice. James Stewart, in one of his austere moments, describes him as ' young and clever rather than able, opinionative and active, and would work if one but knew how to get the work out of him '—meaning that to understanding and

[1] *A Cruise in the ' Gorgon '*, p. 233. [2] Oppenheimer Series, No. 2, p. 43.
[3] Livingstone to J. S. Moffat, 14 January 1858.

tactful leadership he would have responded usefully, as he did when Kirk had charge of him. But Livingstone's aloofness and the effect of the climate which seemed to sap, as it often does, vital energy, brought on a kind of lethargy, and he lay back, doing little or nothing. But when turned adrift and cast upon his own resources, he came to life, went in search of a legendary silver mine, reached the Kafue or near it, tramped on to Zanzibar, met Baron von der Decken there and with him ascended Kilimanjaro, making a geological report on the trip. Stewart thought he must have an income of his own that enabled him to spend £200 or £300 on his journeyings. He came back to the Zambezi and, after a while, was received again into the Livingstonian fold, though there was little for him to do in his own profession, and as has been said, he died in doing a good turn to the University Mission in bringing them supplies from Tete.

The Baines story is even more disquieting. He was one of the older members, being thirty-seven when Livingstone first heard him talk and saw his pictures at the Royal Geographical Society's headquarters, and thought he might be a useful recruit. At that time, as has already been noted, Baines had had quite a deal of experience.

On the voyage out, as Kirk reports, ' Baines is a trump and does more than anyone else ' aboard the *Pearl*, and on Expedition Island, ' did more than his share of rough work, besides his painting, in the glaring sunshine and often without a hat,' a ' good-natured soul ' who, with ' queer notions of hardening himself ', refused to take a rest. Though in his previous travels he had been in excellent health, the climate of Zambezia was too much for his overwrought body. Fever wracked him and he suffered much from lapses into delirium. Yet Livingstone, so generally impatient of illness in himself and others, was forbearing and, a rare trait in his journalising, notes with admiration how ' indefatigable ' he was. Then, as it were all at once, on his return from the first Shiré visit, during which his brother Charles had been left in charge, Livingstone's tone changes and astounding allegations were made of dereliction of duty, ' skylarking ' with low-class Portuguese and at length of deliberate dishonesty and theft.

Subsequent investigations have met and rebutted these preposterous charges. For instance Charles's refusal to assign a place wherein to keep the stores left them lying about where natives could filch them, especially the sugar, which few Africans can resist. For the damage to the whaleboat, she had been capsized at her moorings by a sudden squall, and when Baines, hearing of the

mishap, went down to the water, he was too weak with fever to go in and salve the craft. To anyone familiar with the amply documented life of Baines the charges of fraud and stealing ring false, and the admissions, of which Livingstone makes overmuch, were uttered in irresponsible delirium or near delirium. But perhaps what most provoked Livingstone's resentment was the behaviour of the Portuguese, among whom the artist had many friends. Major Secard, after, on Baines's appeal, investigating the allegations of theft, declared them baseless, and presently at a public meeting of Portuguese convened by him, it was unanimously resolved to refuse Kirk a boat or crew to carry him, Baines, and Rae down to the sea.[1] Instantly Livingstone saw in this a sinister plotting by Baines to set the Portuguese against him, and there followed the cruelties of close cross-examination of a brain-sick man and his relegation to a moral quarantine until he was put aboard H.M.S. *Lyra*.

In Cape Town where friends, many of them people of weight, rallied to his defence, he had a month's relapse into fever and delirium but, presently mending and regaining strength, he made ready to confront Livingstone again and demand the public investigation hitherto denied. Building himself a couple of copper canoes joined by a raft-deck, to transport men and stores down the Zambezi, he set off with James Chapman through Damaraland and Ngamiland. The party were able to penetrate to a point on the Zambezi below the Falls, the artist's delight wherein bore fruit in the well-known series of paintings. But though he kept his health, his companions were so affected by fever that the expedition had to retrace its steps.

Back in England, he tried again to gain a hearing, but few would raise their voices against Livingstone, and, except that he volunteered to lead one of the expeditions organized to find the 'lost' explorer, which offer was declined, the rest of his career has little reference to the Zambezi episode. But he showed his qualities in his journeys to secure a gold-concession from Lobengula for a speculative company and when this body would do nothing to develop it, alleging lack of means, he, by his art and his lectures and his friendships, contrived to fit out a modest expedition, which was drawn up ready to start when death overtook him.

Of late years Baines's name has been cleared of reproach,[2] and

[1] Coupland, p. 163.

[2] See Coupland's *Kirk on the Zambesi*, Debenham's *The Way to Ilala* and the present editor's *Thomas Baines of King's Lynn*.

the evidence points to Charles Livingstone as the source of much of the personal difficulties in the party. Doubtless he, who seemingly was more often on the sick list than any other member, felt the demoralizing climate like the rest, but there was something very unlike the character of the elder brother to whom he owed so much. James Stewart reports Lovell Procter on him:[1] ' Mentioned the universal dislike of everyone to Charles Livingstone. Even the Bishop Mackenzie, who tried to like every one, was obliged to confess that he failed in that case, even after trying,' while Sir Reginald Coupland[2] forbears to quote Kirk's ultimate opinion, only adding that ' it is only fair to its other members to state the clear fact that the mainspring of those quarrels was the mischief-making of the Expedition's " Moral Agent ".' Perhaps however the most revealing glimpse of him is in his own letter to a friend in London: ' The Dr is the last man to see through a spurious article ',[3] as if, by implication, the younger was infallible in noting the mote in other eyes and fraternally reporting them to his senior.

A letter from Thornton to his sister, dated ' Camp No, 1., 22 July, 1859 ', comes in pertinently here, as a glimpse of the party from a hitherto unquoted source.

My dear Helen,

I have not written now for more than 6 months. I last wrote on New Year's Day. Since then I have either not been at Tete or had very short notice before the letters were despatched. About a week ago I received a letter from home, dated, I think, Feb, 2nd/59. It is the second letter I have received from home, the first one was dated May 1st 1858, so that, if you have written monthly, as I infer from the last letter, there must be a goodly number of letters on the road somewhere. Not having received the intermediate letters made some of the news in the last letter somewhat mysterious. Am I to conclude from what is said of the Canada news that poor Hartwell is dead? And Annabelle gone over to Canada to try and bring back poor Annie and the little ones? Since I last wrote I have had a queer and, in part, disagreeable time of it. I returned from an eight-days' excursion in the coal country on Christmas Eve, with a very bad cold and prickly heat. Christmas Eve I got no rest for prickly heat. It kept me pacing up and down the room, sitting or lying down for a few minutes now and then,

[1] Oppenheimer Series, No. 6, p. 120.
[2] Coupland, p. 181.
[3] Charles Livingstone to Frederick Fitch, 15 March, 1862.

then up for another perambulation, and so on—it was the 10th of January before I got quite rid of the cold and got my appetite again. I then wanted to be off again to geologize, but Mr C. Livingstone recommended me to stay a few days longer and get quite strong. On the 13th the river rose very high, and on the 15th Mr C. L. and Baines went off in the boat to Kebrabasa to see the falls when the river was at its highest. I remained and in 3 days was taken very ill with the fever and cold: for ten days I had a most miserable time of it. The prickly heat was very bad. I had cold shiverings nearly every day, and continued burning headache. I got no sleep at night except under opium, which I took several times in what I afterwards found to be dangerous quantities. I was all alone in a great bare house, and saw no one but a nigger now and then. On the 3rd of February the launch returned from Shupanga, and Baines and C. Livingstone the next day. Baines had reached the Kebrabasa falls; Livingstone was unwell and stayed behind about a day from the falls, sending on Baines with two Makololo and short two days' provisions. Baines, after some very hard travelling, returned on the 3rd day, ill with fever and found that Mr C. L. had got tired of waiting, so had returned to the boat 2½ days below with the Makololo—leaving only a note stating the hour and minute at which he left—so poor Baines, ill with fever and without provisions, had 2½ days' walk to the boat—where he found Mr C. L. all well. The last half day Baines was so weak and ill that he could not keep his legs; he fell down continually. When he got to Tete his knees and shins were a mass of bruises, and himself in high fever. A few days later I got a blowing up from the Dr for not having gone on another geological excursion, so I set off in a few days, as I thought, for Maruku and the mountainous district to the North of Tete; but the men (slaves of Sr. Tito the Commandant) led me to the Coal district. I spent several days examining it and the neighbouring hills: two days I was wading up the Muatizi, nearly knee deep against a strong current, under a burning sun, to examine its bed and banks, the latter being generally covered with an impenetrable mass of reeds, etc. This knocked me up, so I went to the hills, as more healthy. About the eighth day out my men rebelled and refused to go with me to three places because there were no huts for them to sleep in at night. At last I got them off towards Maruku. I was ill for 2 days at a village on the way to Maruku and ill again when I got to Maruku, where I received a note from the Dr blowing me up for not having set to work to drive a tunnel into the coal, saying that he had sent me out for that purpose, etc. I was 4 days at Maruku: on the third I ascended a high mountain—the

other three days I was ill. Finding that I cld not stand the wet dew in the morning and the burning sun in the afternoon and having a bad foot, I determined to go to the coal and drive in a tunnel, to get to the coal away from the surface. I chose a seam of coal on the river Morongoge as being the most suitable, and removed my traps to it, and pitched my tent near it. The next day I was unwell, but determined to go to Tete for my tools, etc. I took 2 men with me, leaving the rest to build a shed for themselves by my return—but instead of doing so they packed up all the traps and followed me to Tete. At Tete I found that the Dr was preparing for a long journey up the Shiré river to the great lake. Dr Kirk alone was going with him; they wld be away about 4 months leaving the rest of the members at Tete all that time—the most unhealthy part of the year—without a doctor.—I returned on the 10th of March to the Coal on the Morongoge river and commenced work. On the 12th the launch left Tete and came up the Monta river to take in some coal, for her voyage. I went to bid them good-by, and stayed the night on board. I taught the men how to use the pick and blasting tools, and then had only to overlook them and the first of the blasting. At the latter end of March I took a bad cold and on the 3rd of April I returned to Tete to recruit. In about 8 days I was better and returned to the coal. At the latter end of April I was again taken ill. I kept at the coal until the 3rd of May, when I was very ill. Cld eat nothing and was very weak. My legs were nearly covered with large festered sores resulting from mosquito bites, which I had irritated with scratching, etc. I sent to Tete for a Machela, (a kind of palanquin carried by two men) and returned to Tete. The first few days my legs were worse and I determined to lay them up and not stir off my bed more than necessary. It was three weeks before I could wear a shoe; during this time I had another very bad cold and at the end of it a slight attack of fever. At the beginning of June, by order, I commenced a survey of the district about Tete, leaving the coal to be finished by the men under Mr C. L. who twice went over there. About the middle of June the launch arrived at Tete. The Drs had reached to the great inland sea after a great deal of opposition on the part of the native tribes they passed through. Up the Shiré they killed 3 large elephants and a little one. Dr L's report of the journey will probably be published in the English papers, if you see it you will know more about the journey than I do. I must go back a little now to tell you that, ever since I arrived at Tete, the Dr and I have not agreed at all, and his brother, who commonly goes by the name of ' the long one ' had an old grudge against me because I would

not let him have all his own way in the ' Pearl ', and have not since shown him quite as much respect as he liked. Since Christmas he has (except when the Dr was at Tete) been commanding officer at Tete: he has lived in state at one end of the house whilst Mr Baines and myself have lived in one room at the other end. We only saw each other at meal times. Well, neither the Dr or his brother are liked by the Portuguese, so that he got no visitors whilst lots came to our end; also presents of fruit, etc. were generally sent to our end, so he got spiteful, and set the Makololo to spy after all our doings indoors and out. Now the Makololo get lots of cloth, etc. from Mr L., whilst if they came to our end of the house, I always turned them out, so they wld exaggerate any of our doings and ' the long one ', who keeps the public journal, added his own exaggerations and writes all off to Senna for the Dr. Things have been going on in this way since Christmas. By the time the Dr arrived in June the ' long one ' had a long bitter account against Baines and myself, the result of which was that the Dr wrote me an official letter, stopping my pay from the 3rd of May, so that I am now no longer a member of the expedition, and was told that if I continued to work it wld be better for me. I am continuing to work, but I will not again become a member of the expedition, nor receive pay for what I now do. On the 28th of June I set off, with 2 men to carry my traps and a soldier who knew the country from Senor Tito, to examine all the country round Tete North of the river. I first proceeded to work the North: the 2nd day my legs and feet quite failed me. I had hard work to reach a village by night. Next day I walked about 2 hours to the village of my soldier guide; here I was four days unwell with a bad cold and my legs, but I was very comfortably off. I had a nice clean hut, bread and milk, etc. The village was on a large sugar farm: there was a native sugar mill in the valley and the natives were busy crushing and boiling down the cane juice. From the village I proceeded S.E. to the Zambesi, to see a hot spring, then up the left bank of the Zambesi to the end of the Portuguese settlement: then crossed some very hilly country back to my guide's village. Here I waited a day for a man I had sent to Tete for powder, shot, provisions and cloth, etc. He returned the second day with nothing, not even a line saying that he had delivered the note, and then was sent back and that the launch had left Tete. I thought that this was some more of the ' long one's ' spite so returned to Tete to get a new outfit. There I found Baines all alone; the rest had left in the launch and were not expected back for four months: they go, 1st, to the mouth of the river to meet a vessel with stores etc., then

up the river Shiré to the great lake. Well, I arrived at Tete on the Friday night and intended to be off on the Tuesday morning, back to the country North of Tete, but on Saturday morning I went with Baines to see the Commandant. Whilst there 2 half castes called, Sr. Clementina and Sr Manuel. They were going to start on the Tuesday following for Zumbo and the interior, near the Kafue river. The Commandant asked me if I would like to go with them; it was too good an opportunity to lose. I at once accepted it, and here I am, fairly started. We left Tete on Tuesday and arrived here the same afternoon. This is the 3rd day we have remained at this place, getting all the men and goods in marching order. On Wednesday and Thursday I had two good days' work, searching for coal up a river about 2 miles from here. I failed in finding any, but there is some further up the river than I reached. Sr Clementina is a pretty good sort of fellow, but a hard trader; he would sell the coat off his back if he could gain anything by it: he has by far the larger proportion of goods and men. Sr Manuel is a decent quiet person—brother-in-law to Bonga, a great rebel chief who has a stockade between Tete and Lupata, in which he puts the Portuguese at defiance. We have a party in all of about 300 slaves with us, to carry trading goods: 120 of them are armed with muskets—which is quite necessary, as we may have to force our way through some of the Landeens' Country (south of the river). I take rather more than 200 lbs of baggage, 100 of which is powder and shot, ball and lead. I propose to return in 4 months. I expect a very enjoyable trip of it, but I shall have a good deal of hard work. The country at and beyond Zumbo abounds in game of all sorts, elephants, lions, leopards, antelopes, buffaloes, hippopotami, rhinoceros, etc., etc. I hope to see and kill many. As yet I have seen nothing more formidable than an hippopotamus: they are like great lazy magnified pigs—tremendous big brutes: those at London are very small. I have neither seen or heard a lion, elephants or Buffalo. I have seen a forest with half the trees torn down by the elephants which had passed so recently that their dung was not yet dried. They must be amazingly strong brutes. I have seen lots of trees as thick as my body torn and twisted down on the ground. I think several must have worked together to get some of them down. I and Crab[1] are at present in good health; the latter remains at Tete. I dare not take him with me for fear of the tsetse. With best love to all at home and remembrances to friends,

I am your affectionate brother,

RICHARD THORNTON

[1] Apparently Thornton's dog.

P.S. Write to Stanford, Charing Cross, for all the nos of the 'Proceedings of the Royal Geographical Society' from the last one in the volume I left [? out] at home. I ordered them to be sent. I didn't know why they are not.

For the rest the journal entry under 13 May, 1860, sufficiently reveals Livingstone's gasp of blank amazement and bewilderment when at last his unworthy brother let loose the pent-up torrent of malicious spite and resentment. He spat other venom on 11 June, and at least in the early stage of the journey to Sekeletu, he sulked. His brother took it with noteworthy quiet, and his verdict on Charles's idleness and inefficiency is set out plainly but, considering all things, without rancour.

Thereafter Charles almost drops out of the journals except for casual mention and, when he makes up his mind to break away and go home, there are no tokens of regret. However, while the Doctor was busy upon his *Narrative* at Newstead Abbey, he wrote to Murchison on 9 October, 1864, thanking him for procuring for his brother a consulship at Fernando Po, and told how he was arranging with the publisher Murray that Charles should draw the American royalties. '30,000 of the last[1] were sold there and, though this will not sell like it, we think it better that whatever gain there may be in that country should go into his pockets rather than into the purse of the Harpers. We shall put his name on the title page.' 'I find' he continues, 'that my brother's journal which I am using contains some little incidents which are now so familiar to me as not to attract notice. Mr and Mrs Webb, who are both helping to copy!! think them interesting, so I am in hopes it will prove acceptable to the public.' And in the body of the book Charles is most handsomely dealt with, without a hint of his faults and failings.

IV

The unavailing attempts in November 1858 to surmount the fearsome barrier opposed by flood and precipitous rock had forced Livingstone, for the first time in his life, to savour the bitterness of defeat. The inward agony must have been terrible, and Kirk notes how it changed the outward aspect of the man. The visionary promise of his former triumph derided him, shame and disgrace seemed to confront him and he had besides the responsibility of a European staff who had now become an encumbering nuisance.

Yet, being David Livingstone, he would not own himself beaten.

[1] Livingstone's *Missionary Travels and Researches*.

A frontal attack had failed, but the flanks might be vulnerable. And before 1859 was out he had been thrice up the Shiré and discovered Shirwa and Nyasa. Better still, the lofty salubrious uplands there inspired new plans: he would colonize them with sturdy English settlers, a robust secular complement to missionary effort. 'I would give £2,000 or £3,000 for the purpose. Intend to write to my friend Young[1] about it and authorize him to draw if the project seems feasible.'[2] As he brooded the vision grew, a new land of promise, healthy, well-watered, cotton growing everywhere, indigo seven feet high, oil-seed and buaze.[3] He was weary of the original scheme, where he had had to serve a scientific team instead of following his own bent,[4] and he was sending new proposals to the Government. This fine territory would be peopled not with the 'blackguard poor' and the 'uglies' from England's workhouses, but with her stalwart young men and 'real good-looking strapping women', whose presence and example would do more for the natives than the preaching of missionaries could effect. Lawful trade would develop, with Lake Nyasa and the Shiré as its thoroughfare. Rae would go home to supervise the building of a vessel, made in sections for transport past the Murchison rapids and then put together to serve commerce between the Lake and the falls. A road of some thirty miles would circumvent this latter obstacle and link up with steamers from the Zambezi.

So he cogitated among the desolate mangrove swamps after the sailing of the *Lyra*, when he and his men were rain-bound in the delta, with a leaky cabin, sodden bedding, amid the smell of dampness and of cockroaches which were not to be got rid of by chloride of zinc. There is a glimpse in one letter of Livingstone seated under an umbrella reading *Punch*[5] in this reeking cubby-hole. It was a wonder, he noted, that they were not more sickly than they were. But once again he had a clear purpose and nothing else mattered, so he set off to clear the decks by taking those of his Makololo who wished to go back to their chief and their families. On 23 November he was back at Tete, soon to set off seaward to see Rae away on his voyage home. But a little way out of Senna the *MaRobert* filled and sank on 21 December, as it were a symbolic good riddance and the close of a dark chapter.

[1] James Young (1811–1883), Livingstone's friend of Anderson's College days, one of his trustees and the originator of the paraffin industry.

[2] Journal, 4 August, 1859.

[3] Livingstone to Murchison, 3 November, 1859.

[4] Livingstone to Murchison, 6 November, 1859.

[5] Sent him by Young.

Towards the end of 1859 a naval boat had been capsized in the Zambezi surf, this time luckily with no fatalities, yet the loss of her mail left Livingstone in a torment of perplexity as to the Government's intentions, especially about sending a new launch. But in mid-February of 1860 one of the missing bags was washed ashore and when, after the tardy East African fashion, it reached Livingstone in early April, it was found to contain a letter from the Bishop of Cape Town, dated London, 31 March, 1859, and announcing the likelihood of a Universities Mission before the year was out.

It was welcome news and at once Livingstone wrote to Bishop Wilberforce, acclaiming it: 'viewing the field in all its bearings, it seems worthy of the Universities and of the English church.' And by taking over this evangelical work, with a bishop in charge, it would set him free to organize the other parts of the scheme. He himself had no sectarian prejudices and he was little troubled by knowing that others would not feel as he did. 'I am not sure whether you will be pleased or not' he told his mother,[1] 'to hear that a mission has been established in this land of darkness and of the shadow of death, because Scotch bodies are so desperately bigoted. Janet[2] says, "What good can Puseyites do?" and this mission is certainly of that school: but, without saying that they are perfect or asking "Can any good come out of Nazareth?", I say anything is better than heathenism. We are in the centre of the slave market, and it is against this gigantic evil that my own mission is directed. . . . I am exceedingly glad to hear that the Free Kirk contemplates a mission[3] in this dark region and hope that they will not be discouraged by the difficulties that beset the undertaking.'

As always with Livingstone, the 'cause' came first: metaphysical differences of dogma and ecclesiastical polity could not be suffered to interfere with it. There were moreover the power and influence and command of resources of the Church of England and of the Universities that were so much a part of it: they might be so valuable in enabling the work to be sustained and expanded, financially as well as morally.

On 31 January, 1861, H.M.S. *Sidon*, escorting the new river-steamer *Pioneer*, was sighted off Kongone: a week later Bishop Mackenzie came. The new phase had opened. The quest of a route to find, outside the sphere of influence claimed by Portugal, a way to Nyasa, then a partial exploration of the lake by way of the

[1] 29 November, 1861. [2] His sister.

[3] James Stewart came out as its agent: see his *Journal*, Oppenheimer Series, No. 6.

Shiré and the first armed clash, a minor affair, with slavers. Twelve months to a day, after the coming of the *Pioneer*, H.M.S. *Gorgon* brought the *Lady Nyassa*. Livingstone who, by the way, was to pay close upon £6,000 for her out of his own pocket, had expected her to come out under her own power, a landsman's notion that Captain Washington disallowed. She had to wait until she could be put together at Shupanga, after delays fraught with unhappiest consequences. The next day the brig *Hetty Ellen* arrived with Mrs Livingstone, James Stewart and new members of the Mission, including the Bishop's sister and young Mrs Burrup.

And now that so goodly a company had been assembled, the malign genius of the place struck at some of the best of them. Captain Wilson of the *Gorgon* volunteered to take Miss Mackenzie and Mrs Burrup up the Shiré to meet their men folk at that river's confluence with the Ruo, and Livingstone sent Kirk with them as convoy. In itself the voyage was trying enough, and was the more painful because the bishop's elderly sister fell ill and was unable to move without aid. At the Ruo rendezvous they found neither husband nor brother, and pushed on to Chibisa's, the Chikwawa of to-day, where on 4 March they heard that Mackenzie had succumbed to fever on 31 January and Burrup, having buried his diocesan, struggled back to the station to die on 22 February.

To Bishop Gray Livingstone declared, 'The blow is quite bewildering—the two strongest men so quickly cut down, and one of them, humanly speaking, indispensable to the success of the enterprise.'

Kirk and Wilson barely survived a grisly journey up to the mission, and the appearance of their party, when on 2 April it regained the *Gorgon*, is described by Devereux.[1] 'Captain W— arrives first, and shakes our hands cheerfully; he appears a mere skeleton of his former self. Next, two dark objects are borne on the crossed arms of two blue-jackets: not a word comes from them. The men carry their loads gently and mournfully and deposit them carefully in the captain's cabin: they are the ladies, not dead but next to it. Then comes my poor friend S—[2] clad in tattered flannel shirt, red fez and worn inexpressibles. His face is pale and care-worn, and overgrown with hair; and with a monkey-skin haversack slung over his shoulder. He looks the very picture of an unfortunate but noble beggar as he limps towards us, and it is pitiful to hear him greeting us with the words " I'm a cripple ". We bear him below, and soon learn how much he and all have suffered. . . . The boats'

[1] *A Cruise in the 'Gorgon'*, p. 251.

[2] Rev. H. C. Scudamore, of the Mission: he died of fever on New Year's Day, 1863.

crews bring up the rear; pale and worn out, some of them too weak to walk.'

The *Gorgon* steamed away on 4 April, and the *Pioneer* began the laborious transporting of the *Lady Nyassa's* sections up the Shupanga, where at seven in the morning of the 27th Mary Livingstone died. Stewart has told all that need be told of this bitterest blow of all:[1] her husband's poignant letters command a decent reticence. Only this need be noted, his bewilderment when confronted with the inevitability of loss. She had been so much his other self, submitting her will to his without question, that he had come to take for granted that this perfect concord would last for ever. As he exclaimed to her parents, ' I have felt her to be so much a part of myself that I felt less anxiety for her than I have felt for worthless blackguards like B. She seemed so strong too.'[2] There is something of bewildered incredulity in this last phrase that is characteristically revealing. So too is his swift return to self-control and to the work awaiting him. ' I shall ' he tells Murchison, ' do my duty still, but it is with a darkened horizon I set about it.' And straightway he turns to business: ' Mr Rae put the hull of the new steamer together in about a fortnight after we brought up the keel. She looks beautiful and strong and I have no doubt will answer all our expectations, when we get her on the Lake.'[3]

The final stages of the Expedition's endeavours went heavily. First Livingstone went to Johanna for supplies and, if it might be, to buy oxen for the scotch carts meant to transport the lake steamer in sections past the Murchison cataracts. On the way back he sought again to test the Rovuma as a possible alternative route to the highlands, and during this bootless attempt his boats were attacked by natives, one of whom was killed in the ensuing mêlée. Sundry delays deferred the passage up the Shiré till 11 January, 1863, a dreary journey with the *Pioneer* towing the *Lady Nyassa* through a country desolated and unpeopled by slave raids and famine. Yet the little troop pushed on to the point where the *Lady Nyassa* could be dismantled for portage past the rapids. But she never was to reach it. Livingstone fell ill and Kirk, though he had arranged to return home, loyally stayed on to nurse his chief till he was safely

[1] Oppenheimer Series, No. 6, pp. 57–8.

[2] Livingstone to Robert and Mary Moffat, 25 October, 1862. The identity of ' B ' is uncertain : In a letter to his mother on 30 August, 1862, Livingstone speaks of the overlong sojourn in malarious Shupanga, that led to his wife's fatal illness. He says, ' The man whose culpable negligence did it all, had fever himself and was jaundiced, but was saved at death's door '. He may have been ' B '.

[3] Livingstone to Murchison on 29 April, 1862.

on the way to convalescence. He left on 19 May, with Charles Livingstone and the carpenter.

Weak though he still was, the explorer could not rest but tramped past the Shiré falls to recover a boat he had left in a tree a couple of years before, intending to essay another excursion out to the lake. But forest fires had destroyed his craft and he had to return, to meet, on 3 June, an order of recall from Lord Russell. The manner in which the news was first given he described to the Minister protestingly in an enclosure to a despatch:[1] 'When Bishop Tozer arrived at the Mission station seven miles below them, the servant sent up hailed the ship's company from shore in strong Surrey dialect, "No more pay for you Pioneer chaps after December; I brings the letter as says so." As it did not matter in the least to me how widely the mere fact of our recall might be known, I set this down to the Bishop's ignorance of the world and possibly to an ill-defined wish to impress his subordinates with a high sense of one who has been allowed to peruse despatches from a Secretary of State, and took no notice.' But he found that Tozer's people knew and had discussed the contents of the documents openly before both English and Portuguese at Quilimane, and Livingstone justifiably protested. 'I have always considered the Despatches of a high officer of state as even more sacred than private correspondence, and as this could not have been degraded to the purposes of missionary and other gossip without your Ldp's sanction, notwithstanding the courteousness of its style, I submit that at second-hand my companions and self have been treated with very unmerited humiliation.'

Foreign Office orders required the *Pioneer* to be handed over to one of H.M. ships at Kongone before the year's end, but the Shiré was running low and 'we can't come down before December without abandoning the *Pioneer*. *Lady Nyassa* could go down, and we could now enjoy the safe season for taking her to India, but I wish to treat Govt property as it were my own.'[2] The bishop of Cape Town had written condolingly, and hoping that the recall might not reach him before the lake steamer's parts had already been carried past the rapids, so that he might not return 'before you have accomplished the feat at which you have been aiming these three years'.[3] It was kindly meant but out of the question. Still it was never Livingstone's way to sit idly brooding. He would leave the mockers to fleer, and make one more sally into the un-

[1] Livingstone to Lord John Russell, Murchison Cataracts, 17 July, 1863.
[2] Livingstone to Maclear, 8 July, 1863.
[3] Robert Gray to Livingstone, 18 April, 1863.

known lake country. And this time he would go alone. Kirk and his brother had left him. Rae must stay by the little ships, and there was no one else he could care to take.

Frustration and suffering had driven him increasingly into himself and he had become more unapproachable than ever. But his followers insisted that a white man must accompany him, and in the end he consented to take the steward. The excursion ran to some seven hundred miles of as rough going as Livingstone had had to face, except perhaps at Kebrabasa, but as usual he made nothing of it. It was all in the way of duty. Had he had time he would have gone farther to find whether or not there was a river from another lake—perhaps Tanganyika—flowing into Nyasa, but as it was he saw and heard enough to set his mind excogitating new plans. He might come back to settle beside the lake and devote himself to the suppression of the slave trade.[1] But always exploration swayed more powerfully than a settled life. 'Ten days' Northing would have taken us to a small Lake named Bemba, from which emerges the Luapula, flowing Westwards to form another and larger Lake, Moele. Then there is Mofu, another Lake, and, passing Cazembe, it falls into Tanganyika, according to some: according to others, into Zambesi. I would sometimes prefer this to be a secret for a while; at other times I don't care'[2]—a sentence eloquent of his state of mind. He was still smarting under the strokes of adverse fortune and of intimate loss, but this glimpse of stirring possibilities was already doing him good and he was recovering his poise. He would come out again and solve this riddle of the lakes.

After rejoining his party he could set out on the first stage of his long journey home. He had failed, but he was not a failure and still this eastern tract of Central Africa was his kingdom. Kebrabasa might have overturned his scheme for the Barotse highlands, but, for all that, he had new achievements to his credit, the laying open to the world of the Shiré valley and the lakes Shirwa and Nyasa, and the lower course of the Rovuma. He could tell, as none other could, of the natural resources of these areas, of their inhabitants, of the slave-trade and the way to deal with it. Maybe it was deplorable that the Universities Mission had allowed themselves to be caught up into native feuds, but anyone could make mistakes, and no great harm had been done. Therefore, as he made his way down stream, he did his forceful and perhaps not always tactful best to stiffen the resolution of Mackenzie's successor. But Bishop

[1] Livingstone to his son Thomas, 20 October, 1863.
[2] Livingstone to Maclear, 5 November, 1863.

Tozer was a man of quite other mettle than his predecessor and it was told the Doctor that he had declared his purpose to be the winding up of affairs and the quitting of Nyasaland as an unpromising field.[1]

There was no time for him to do more than give the counsel that seemed best, and hold on for Quilimane, after handing over the *Pioneer*. Not that prospects at home seemed to promise much. Kirk had been to the Foreign Office where no one seemed to know or care much about the Expedition, its doings or its plight. As for the Minister, ' I was quite prepared' says Kirk, ' for Earl Russell's cold manner, and don't expect anything to be done if he can help it: but everyone is so sick and tired of his policy in continental affairs that surely he will be kicked out soon.'[2]

As the story of his Zambezi journey may be said to have opened with his letter to Pedro V, so now, on his homeward passage the news of that King's death recalled how in those early days an invitation had come for him, the sometime ' piecer ' in a Blantyre cotton mill, to go to Lisbon and talk over plans with Portugal's king. Meanwhile, in these latter days he had, since Mary's death, been finding increasing comfort and satisfaction in correspondence with his children, and particularly with his eldest daughter Agnes. To read these letters is to feel unmistakably the growing solace and peace of mind that came to him from this intimate source.

Perhaps few episodes in the history of the Zambezi Expedition transcend in cool, almost cold-blooded, matter-of-fact audacity its fine concluding episode, his navigation of the *Lady Nyassa* from Quilimane to Bombay. But it was just the kind of venture Livingstone would undertake with scarcely a second thought. Rae left him at Johanna, to take a post there on the sugar estate of Mr Sunley, the British consul there. He had stood by his chief steadfastly throughout, and it was a little hard that now, when he might fairly be allowed to take thought for his own future, he should be coldly regarded as something of an ingrate.

It was hard, but it was not the first time that Livingstone's absorption in his own devotion to African plans made him disregardful of the loyalty of his colleagues. Navigating his little craft himself, he set off, a little late, as so often, but he just managed to slip into Bombay harbour before the monsoon became too dangerous. There he found a warm welcome from the Governor Sir Bartle Frere. Leaving the *Lady Nyassa* still unsold—he dreaded lest it might be bought by a slave-trader—he went on, crossed

[1] Livingstone to Maclear, 23 February, 1864.
[2] Kirk to Livingstone, 1 August, 1864.

overland by Suez, to reach home in July 1864. Upon his arrival in London Murchison bore him off, 'just as I was, to Lady Palmerston's reception. My lady was very gracious. Spoke to the Duke and Duchess of Somerset. All say very polite things and all wonderfully considerate.'[1] It was gratifying of course, but an interlude merely, and when he had been with his children and told his story in another book, he would go out again to his own place, Africa.

Livingstone had been balked of his initial purpose, the opening of the Barotse highlands to commerce and industry. But his expedition had not been a failure even on its material side, quite apart from its exemplary value as a revelation of what the human spirit can achieve by selfless devotion and invincible endeavour. He had revealed Nyasaland, lighting the way to the development of that territory to its present pitch as a member of the Central African Federation. What that means in future possibilities is set out in the recently published Halcrow report, the product of a team of specialists over a period of three years. It discourses of possibilities like extensive hydro-electric and irrigation works, and in their train industries such as the production of nitrogenous fertilisers, cotton goods from local crops, alumina and aluminium from bauxite deposits in Livingstone's Melanje—the modern Mlanje—Mountain, paper from reeds, jute, sugar and cement. A port could be established at Matope and water-and-land transport organized from the Lake to very near Blantyre.

All this is the sober conclusion of entirely matter-of-fact expert judgment, not the dream of an enthusiast. But while modern budgeting puts the cost at somewhere above seventy-seven millions, Livingstone did his part on £5,000 from his Government and something more than that from his own very slender purse. But beyond money and above price was the lofty resolution, indefatigable toil, the unstinted self-sacrifice and the dogged persistence which his Zambezi records set down in the plainest unvarnished prose. Eminent in his own day, his greatness becomes clearer and less refracted as the years go by, the greatness of a life's devotion and dedication to a magnanimous end.

V

The Zambezi records here reproduced are from the following groups of sources:

A. Four stoutly bound diaries of the average dimensions of $7 \times 4 \times 1\frac{1}{4}$ inches: the entries are in ink.

[1] Debenham, *The Way to Ilala*, p. 214.

B. Two ' Metallic Memorandum Books ', 5 × 3 inches.
C. Five small memorandum books, of which one, if not two, were improvised by Livingstone himself.
D. Four loose sheets of blue notepaper, 7¼ × 4 inches.

A Group

A. 1. Half-leather, paper sides, end-papers and edges marbled; back hollow. Inscribed ' D ' by Livingstone on the fly-leaf.

A. 2. Brown suede, marbled end-papers and edges; fitted with a lock clasp. 358 pages, pale blue paper ruled feint.

Before sailing on 10 March, 1858, Mrs Livingstone copied the following for her husband: (1) *Remarks on the East Coast of Africa, West Coast of Madagascar and the Mosambique Channel. H.M.S. Grecian*, 1852–1856; (2) Livingstone's note; *By a Portuguese plan of the district which I saw at Quilimane the Mainda is represented as a small river of the Zambesi extending*[1] *40 leagues and bounded North by the coast, South by the sea, West by the Luabo and Inha . . . nya on its N.E.;* (3) Letters to the Rt Hon. Henry Labouchere, 2 April, 1857; The Rev. A. Tidman, 7 April, 1857; Count de Lavradio, 17 April, 1857.

On his travels Livingstone used this book for occasional notes, e.g. corrections of his ' small watch ' by the ' Standard Chronometer ', July 1858, and observations for latitudes. Then when he had no other space he turned back to a blank page at the beginning to complete a final entry: *Put the letters ' V.R. Jany 16th 1858 ' in red paint on a rock on left bank fronting the cataract as a memorial of our visit.* After which he added: *Journal from 2d August 1858 to 9th January 1859.*

A. 3. Similar to A. 1. Fly-leaf inscribed; *Journal 1859. David Livingstone, Feby, Tette.* The opposite page is marked ' E '. Then follow (i) a catalogue of the fourteen *Voyages of MaRobert, alias Asthmatic, under command of Dr L.* and (ii) three dispatches to Malmesbury, 22 and 23 March and 22 June, 1858.

A. 4. Lett's Diary No 8 for 1858, inscribed *Presented to Dr Livingstone with the Publishers' best wishes:* inscribed beneath *David Livingstone, 1860, Zambesi, East Africa.* Bound in maroon leather with lock clasp. Page 1 inscribed *Decr 1859–1860*; page 2 has a note: *A woman brought*

[1] *I.e.* the plan or chart, not the Mainda, extended.

ashore from H.M.S. Lynx who had been captured near Rovuma was of the slave party we saw at Lake Nyassa. She says that the party passed us at Masauka and they heard that a strange party of white people were there. She says that she belongs to the Batinje and their village is called Morongocha. Some of those with them as sailors of the Dhow will not eat meat if they do not kill it themselves and cut the throat of the animal. Pages 2–4 carry Livingstone's transcript *From Professor Owen's opening speech at British Association at Leeds, copied from Times of Sepr* 24, 1858. *Kongone,* 1 *Decr,* 1859. Nine ensuing pages bear a survey of happenings and meditations upon future possibilities under the date 1*st Decr,* 1859.

B. Group

B. 1. ' T. J. and J. Smith's Metallic Books.' Leather bound, with clasp, marbled edges and end-papers, unlined: $6 \times 3\frac{1}{2} \times \frac{1}{2}$ inches. Pencilled record of events from 3rd July to 26th October, 1859.

B. 2. ' Henry Penny's Metallic Memorandum Books '; $5 \times 3 \times \frac{1}{2}$ inches. Journal entries from 19 March to 12 July, 1863; it has notes on native tools, customs and foods, natural history notes, quotations from Whateley's *Bacon,* Sir James Stephen on Richard Baxter, and lists of native words. The undated comment on the Chibisa mission is here printed after the diary entries.

C. Group

C. 1. Notebook, about 6×3 inches. Topographical notes, loads for natives and cloth issued to keep them warm on the Shiré highlands. Diary, 23 August to 8 October, 1859 and draft letter to the Government suggesting two small steamers for river and lake traffic.

C. 2. Similar to C. 1. Names of the natives given guns on 29 April, 1860, loads assigned and the bearers who ' returned to Tette or fled ', and a journal entry for 16 and 17 May, 1860.

C. 3. Made by Livingstone from drawing paper: sketches of elephants with measurements, compass bearings, profiles of hilly landscape: diary from 16 May to 2 June, 1860.

C. 4. Similar to C. 1 and 2; diary from 3 to 27 June, 1860.

C. 5. Another home-made ' jotter ' of very thin paper in a flimsy silk cover, inscribed by Livingstone, 2. *Taba Cheu*

and Sesheke. Diary from 28 July to 23 August, 1860, and thermometrical records.

D. Four loose sheets; three pages carry stellar observations and rough sketch maps. Of these latter the only clear one shows the Shiré from Pamalombe Lakelet to just below Zomba. The diary runs from 30 October to 7 November, 1861.

The text of the journals is here given in full except for their more intimate pieties, occasional entries of payments made or stores given out, and stellar and cartographical notes. Livingstone's spelling of personal and place names has generally been followed and most of his departures from the spelling norms of his time. His manuscript presents very few difficulties and asks little in the way of annotation.

The thirteen coloured reproductions of Baines's Zambezi pictures in the possession of the Central African Archives, Salisbury, may be regarded as a promise of what might have been preserved to posterity had fortune, and perhaps Livingstone, been kinder. The artist's technical competence, his fidelity and his quiet but unmistakable gusto are manifest and, from what both his leader and Kirk report, it is plain that he had gone out full of expectation of and amply equipped for the delineation of the manifold scenes and events of a great adventure. He had taken every precaution against being caught, as he had been in his wide South African rovings, so without canvas as to have to buy common ticking from Kaffir stores and paint upon that shoddy foundation. That he was 'indefatigable' Livingstone himself testifies, and that he loved his mystery as much as or more than he loved travel shows in these preliminary water-colour essays.

In the preparation of the Zambezi Journals for the press I have been most generously assisted by David Livingstone's grandson, Dr Hubert F. Wilson, M.C., who has placed at my disposal all the relevant journals, note-books and letters in his possession. I am also obliged to that veteran among Livingstonians, the Revd Dr James I. Macnair[1] for kindly interest and help and particularly for bringing to my notice Richard Thornton's letter, here for the first time printed. The Dean of Ossory, the Very Revd George Seaver, has allowed me to read the biography of Livingstone that he now has on the stocks and Miss Irene M. Fletcher, has given me useful information from the library and records of the London Missionary

[1] Since these volumes went to press the Revd Dr Macnair died on 25 August, 1955 at the age of eighty-six.

Society. Mr V. W. Hiller, O.B.E., Chief Archivist of the Central African Archives, who planned the publication and invited me to undertake the editing, has done everything to assist. I have also to acknowledge the kindness of Richard Thornton's great-nieces Miss Barbara H. Wood and Miss Alison Taylor Wood for permission to print his letter to his sister Helen in my Introduction. Professor Frank Debenham has prepared the map for these volumes.

Once more I have to thank my wife for tireless co-operation.

J. P. R. Wallis

Linch Cottage
Finchingfield

THE ZAMBEZI EXPEDITION OF DAVID LIVINGSTONE

Journal A.1

Sailed from Liverpool on the Screw steamer 'Pearl', Captain Duncan, on the 12th March, 1858. We were favoured with remarkably fair winds for this time of the year and ran quickly down the Channel and across the Bay of Biscay.

18*th March.* When all had recovered[1] from sea sickness and the weather had become calm and warm, the Instructions from the Foreign Office were read in[2] presence of the whole of the members of the Expedition and Captain Duncan, in order that the objects we have in view might be clearly understood and every one be induced to lend his best energies to carry them into effect. Lessons in the Sechuana tongue were also attended to, and all are daily engaged in preparation for future services.

19–20*th March.*[3] Engaged in writing out detailed instructions for each member of the Expedition. A copy of the general instructions will be placed within reach of all.

21*st.* Church at 12½. Screw up a loss[4] of time. With the screw we make on the average almost 200 miles a day.

22*d.* Opposite the mouth of the river Senegal. Lat. left 19° 2′ N. Lat. in 16° 7′: Long. left 18° 57′, Long. in 19° 17′. Sailing in a due South course 177, we made 20 miles of Westing. By examination of the water by the saltometer at 8 A.M. of this day there were 7 ounces of salt to the gallon. By 3 P.M. only 5 ounces to the gallon. The set Westerly is evidently caused by the fresh current from the Senegal, so that when sailing, as we thought, in a due South course, we were actually S. 7° W. Is the Porgas bank not a collection of debris from Senegal?

23. At 8 A.M. water is 6½ ounces salt to gallon.

March 25*th.* Reach Sierra Leone after a quick passage of between fourteen and fifteen days from Liverpool, and were kindly received by His Excellency Colonel Hill,[5] the Governor. This colony has become more healthy than formerly during the last ten years. This has been remarked by several who have been resident

[1] *Marginal note :* Madeira.
[2] *Marginal note :* Teneriffe.
[3] *Marginal note :* Canaries.
[4] So in the original.
[5] Stephen John Hill (1809–1891) was appointed Lieutenant-Governor of Sierra Leone in 1864 and was made K.C.M.G. in 1874.

here and, among the rest, by Mr Oldfield,[1] the African traveller and Mr McCormick. A proportion of the blame attached to the climate ought to have been ascribed to ' Whiskey fever ' and other irregularities. The part of Sierra Leone called Kroo town, where the chief black population resides, was, until the present Governor came, a swamp, as all the streets were one succession of pools which stood foul, fetid and green until the sun dried them up. Governor Hill raised all the streets and gave the rain water the means to escape to various streams and thence into the sea. What others talked about he did, and hence the improved health which has followed.

March 28th. Went to the Cathedral and witnessed the ordination of three Europeans by the Bishop, Dr Bowen,[2] who is an energetic good man and admirably well suited for the position he fills. There seems to be a good feeling between the Wesleyans, dissenters and church people here, as the former gave their people an opportunity of seeing the ordination.

A black man shot his wife in a fit of jealousy and set his house on fire. He kept the people at bay by a gun loaded with 18 inches of powder, but Mr Bradshaw told them to arm themselves with stones and they overpowered him therewith. When they become jealous they are frantic.

Sierra Leone is situated on a beautiful rocky promontory which, with the hills behind, looks very pretty from the sea. The rocks are a ferruginous[3] conglomerate and basalt, the whole being at this time a rust of iron colour. The landscape is well adorned with trees of various kinds, and no one would imagine a picture of so much beauty was the ' grave of the white man '. Cotton may be seen growing wild. Dr Kirk secured several interesting plants and some mud fish and a gum resembling gutta percha.

30th. A Mr Reeder has been in the Colony ten months in order to raise Indigo. He has got a few assistants from England who understand the process of raising it and he has good prospects of success.

We gave one month's advance wages to our 12 Kroomen who, with their headman from Jumbo, seem good active men.

Sunday is as well observed as everywhere in Scotland.[4]

When we compare the state of the people of Sierra Leone with

[1] R. A. K. Oldfield, Macgregor Laird's companion in the Niger Expedition and part-author in the published account of it, *The Narrative of an Expedition into the Interior of Africa*, 1837.

[2] John Bowen (1815–1859) had been created Bishop of Sierra Leone in 1857.

[3] *ferruginous* in the original. [4] *Marginal note.*

that of the population on the Congo, we see the greatness of the change that has been effected. Posterity will look upon this establishment as a great fact.

March 31st. Having coaled and watered, we started from Sierra Leone at 11½ A.M. A small tornado passed over us last night, and early this morning[1] we experienced another which brought sand and small stones with it, although we were 30 miles from land.

2nd [April]. Opposite Monrovia and Cape Palmas; 6 ounces of salt in gallon of sea water.

3–6th. One heavy rain last night, or rather this morning, being the first we have had, though we passed under the sun two days before, and as the rains always follow the sun, we might have got more. Our distance from the land may have been the reason. We have struck across the Bight, making for Cape Negro, outside Anna Bonna island.

The South East trade, striking our beam constantly, has given a very uneasy motion to the ship and nearly all have been unfitted for mental work in consequence. We have a current against us too, which makes us lose about 40 miles daily. The Pearl is an uneasy ship on account of being shallow in her draught.

April 7th. Slops[2] served out to the Kroomen.

April 6, 7, 8th. Sorting our stores and luggage.

9th April. The continued sickness of Mrs L. ever since we left Sierra Leone, which has been accompanied by symptoms of her being enceinte, leads me to decide on leaving her at the Cape in order to accompany her brother John[3] to Kuruman, and then, after her confinement, she may rejoin me in 1860. This is a great trial to me, for had she come on with us, she might have proved of essential service to the Expedition in cases of sickness and otherwise; but it may all turn out for the best.

14th April. Sighted the land at Cape Negro and ran close to it near Great Fish Bay. The shore is composed of yellow sand ridges 300 or 400 feet high and sloping down to the sea. They are furrowed and closely resemble a ploughed field, the ridges being at right angles to the sea. The curious appearance is probably caused by the winds piling the sand up, as it does snow sometimes. They are like gullies too, but so regularly cut as to prevent one from that conclusion.

The sea swarms with fish. The point which runs out from the

[1] *Marginal note :* 1st April.

[2] In the naval sense of clothing and bedding issued to sailors, though no bedding was issued to the Kroomen.

[3] John Smith Moffat.

bay is a very low sand bank and it runs nearly west, instead of to the North, as laid down in the chart.

16*th April.* Cross the Tropic of Capricorn this morning, about 20 miles from the coast. Weather cold but clear and a cloudless sky. Delivered instructions to Commander Bedingfeld, Dr Kirk and Mr Rae, after they were entered into this book.

18*th*–19*th* (*April*). Have written instructions to Mr Thornton and Baines, as entered in this book.

Arrival at Cape of Good Hope 21st April, 1858.[1] On the evening of 21st we arrived in Table Bay and landed Mrs Livingston. We found that Mr and Mrs Moffat from Kuruman[2] were waiting our coming, and they report that on Mr M[offat]'s late visit to Mosilikatse he ascertained that my late companions[3] had not returned to their country; consequently we may infer that they still await my return at Tette. They will be most important aids in conveying to the people on the Zambesi a correct idea of the views of H.M's Government in sending the Expedition.

23*rd April.* Went round to Simon's Bay, the Pearl having preceded me. The senior naval officer, Captain Lyster, in the absence of the Admiral, entered with great cordiality into the task of supplying our wants. Sent men to coal the Pearl, while Captain Drew of the Dockyard furnished everything most promptly. The carpenters of the dockyards were lent to make gratings for the launch, which work, with the coaling and watering, detained us till the 30th.

At Cape Town the Governor, Sir George Grey, K.C.B.,[4] entered warmly into the objects of the Expedition and resolved to form a line of communication between Cape Town and the Zambesi by way of Hopetown, Griquatown. Kuruman, Melita, Shoshong or Bamangwato, Mosilikatze and Kafue, and by means of donkeys and native teachers.[5]

A silver box containing a testimonial of £800 guineas was presented to me in a crowded meeting in the Exchange by the hands

[1] *Added in margin.* [2] Robert and Mary Moffat, Mrs Livingstone's parents.

[3] The Makololo who had been with Livingstone on his great trans-African journey and had been left behind in Tete to await his return.

[4] Sir George Grey (1812–1898) was High Commissioner and Governor of Cape Colony from 1854 to 1861. In July 1859 he was relieved of his office by the Secretary of State for the Colonies, Bulwer Lytton, for encouraging federation among the South African states without permission from Downing Street, but in July 1860 Lytton's successor, the Duke of Newcastle, sent Grey back to his former post.

[5] The meaning behind this startling collocation of terms seems reasonably clear. The teachers would act as local postal agents and the donkeys, which at that time were thought to be immune from the ill effects of tsetse-fly bite, would provide the means of transport.

of the Governor, and on Wednesday a grand dinner was given to the Expedition in the same place. Mr Porter,[1] the Attorney General in the chair. The Cape people look with much favour on our object and will vote money for the postal arrangements.[2]

Sailed from Simon's Bay 1st May 1858. We sighted the East coast of Africa to-day and by the afternoon was[3] close in-shore.

About 2 o'clock we passed the mouth of the river St John, a magnificent scene, as the land rises about 2,000 feet above the level of the sea and a great cleft is made in the lofty plateau to allow the river to emerge. We stopped a few minutes to allow Mr Baines to take a sketch of the beautiful landscape. There is a hut on the left hand side of the entrance and a flagstaff on a mound at the right. Mr Skead, R.N.[4] was lately sent up to examine if it were suitable for a settlement, but the surf breaks heavily into the bay. The bar might be removed if a wall were erected inside the river to guide the stream straight out. Captain Gordon went up nine miles from the mouth in his boat.

The natives made fires inviting us to land; but the surf beats frightfully along the beach and when Mr Skead was in,[5] his boat was stove to pieces. The country is covered with abundant vegetation and is in general beautiful to behold.

Between 3 and 4 o'clock we came in sight of H.M. ship Hermes; she, having sailed a day and a half before us, ought to have been further on. We saw her cool[l]y going in-shore and anchoring while still light. We reached her as six o'clock was struck on board her and, stopping, Captain Duncan enquired if there was anything the matter. 'No' was the reply. We then asked Captain Gordon to send a boat on board, and I delivered the gold watch of Col.

[1] William Porter (1805–1880) brother of John Scott Porter (1801–1880), the Irish biblical scholar, was called to the Irish bar in 1831 and appointed Attorney-General for the Cape in 1839. He joined himself with those advocating free popular government in the Colony, at Earl Grey's request drafted a scheme to this end in 1848, and after this had come to nothing, drew up what was known as the 'Attorney General's Draft' of 1850, the basis of the 1853 constitution. He was vigorous in contending that public officials should have the right of election to parliament as full and free members, and even resigned his office in 1865 in support of this principle. In 1872 Sir Henry Barkly invited him to form a Cabinet but he declined.

[2] *Livingstone adds a footnote :* 'Turn over 26 leaves'. The contents of these leaves, the instructions to the several officers of the Expedition, are given as appendices to the present edition. The journal is resumed on May 6th.

[3] So in the original.

[4] Lieutenant Francis Skead, seconded to the service of the expedition to survey the Zambezi delta. He returned aboard the *Hermes*; see below under May 7th. Later he became harbour master at Port Elizabeth.

[5] So in the original: something seems to have been omitted.

Nunes which I took to be repaired in London, and some despatches for Mr Macleod, the consul of Mosambique.

We learned that the Hermes had anchored in Algoa Bay 24 hours and took in some coals. Then off the Buffalo mouth, and on another occasion, Captain Gordon seems unwilling to perform the service imposed on him.

7 *May*,[1] 1858. We are in smooth water, though not in sight of land: the current is against us but we make progress. Preparations going on for our work in the river. We are accompanied by Mr F. Skead, R.N. according to the instructions of the Admiralty. This gentleman is to go up river with us and assist in making a rough survey thereof. He will return in the Pearl, and the Hermes is to wait for him off the Luabo until he returns.

11*th May*, 1858. We commenced to-day to take two grains of quinine in half a glass of sherry as a preventative to fever: if it does not prove an entire preventative, it may possibly influence the system to a certain degree and render it more easy to induce Cinchonism when that is really necessary.

12*th May*, 1858. We passed Cape Lady Grey this morning at ½ a mile's distance. We see the trees in the bay beyond, tall and straight like fir trees, but they are probably willows. A strong resinous scent was discernible off the land. A shoal of porpoises played lazily about. In the afternoon we passed the table-land of Cape Sebastian. A deep bay lies at its North. While there a strong breeze from the[2] sprang up and, while going at eleven knots an hour, porpoises careered before us, as if they enjoyed the sport. A flock of birds, such as we often see keeping in a compact body, was driven past to sea and must all have perished. Hornets, butterflies and other insect[s] came to the ship from time to time. The coast is generally low and composed of sand knolls covered with low bush. Inland it is better, and densely wooded. The natives have been seen several times going along the beach. Indeed that seems to be the public path at some points.

13 *May*, 1858. Came in sight of land near the Eastern Luabo but bore out again southwards. I was attacked by severe diarrhoea and the ship rolled terribly through the whole night. Nothing can exceed the discomfort and pain when one is obliged to hold on with all his might to prevent being pitched off the closet.

14*th May*. We stood in for the West Luabo, or Hoskin's branch, as it ought to be called, for he first described it. The coast is well laid down by Owen. Pieces of reeds, a large tree, leaves and seeds

[1] Here and under the 11th and 12th, the journal mistakenly has April.
[2] Word missing at the foot of the page in the journal.

floated past us, and it is worth noting that generally, under wreck[1] floating on the sea, fishes screen themselves from birds of prey. A sailor had observed that advantage is even taken of Portuguese men of war[2] and floating cuttle fish bones for the same end.

About mid-day the sea became very deeply discoloured and, as it had sharp defined edges, the discolouration was evidently owing to the vicinity of a large river. It became even of a pea-soup tinge. The Hermes then hove in sight and Captain Gordon came on board. The Pearl found the bar of this river so smooth that she came in without soundings ahead and anchored in the inner harbour, which is all surrounded by mangrove banks over the roots of which the tide rises. The best objects to guide one is a Quoin-shaped clump of Mangrove trees and a palm tree which branches. This resembles the Dom palm of Egypt, but the fruit, of a pear shape and bulged out at the thick end, is different.

15*th May*, 1858. It seemed to me to be a work of necessity to get out of this region of mangrove swamps as quickly as possible, so the men commenced on Sunday morning and took out the launch. By sundown it was all in the water and two pieces joined. The only person who did not like this was the head engineer. I did not wish to wound the conscience of anyone, so asked to[3] the Captain to enquire if any man objected to the plan of working on that day, and if they had, we should have remained idle. The engineer dressed himself on Sunday and stood all day in his best clothes, although this was the only Sunday he had ever done it since we left Liverpool. He never came near our worship.

Some of the members went down with Mr Skead to (? survey)[4] the entrance and saw hippopotami.

16*th May*. Working hard to get the launch ready. I still disabled by diarrhoea. Survey proceeded with. Natives seen, spoor of a buffalo, etc.

17*th*. Working at Launch.

18*th*. Finished Launch but on trial found the feeding pipe choked.

19*th May*, 1858. Started with Launch and Pearl this morning but very soon got aground in consequence of going up a wrong branch of the river. Got her off in ¼ of an hour and wait for low water.

20*th May*. Went on about ten miles yesterday and saw two natives with a canoe. This morning got under weigh about six A.M., and from some mistake the Pearl ran aground at the entrance

[1] Wrack ? [2] The *Nautilus*. [3] So in the original.
[4] Word obscured by ink-blot.

of a creek and remained about two hours fast. Launch remained at a distance and I signalled it to come aboard. A disposition shewn to blame each other rather than assist in getting her out of the scrape. I ordered the MaRobert, when she saw us in any difficulty, to come at once and help us. Anchored at noon, as it was high water and it is best to go on at low water, as, should the vessel then touch, the rise of the tide lifts her off. See a deserted village in the distance. Many Makololuane or storks and black geese seen all around us. Several heavy showers fell like thunder showers.

21*st May*. Went a few miles farther after getting afloat, and anchored. MaRobert found passage difficult and intricate near a branch which runs off to the N.W. Passed this and took a narrow deep branch looking Northward. Proceeding up this 12 or 13 miles, among open extended plains covered with grass. We anchored and next

24*th* day MaRobert went ahead and explored until she could go no farther. Saw some villagers who came to the Kroomen's canoe at the invitation of Tom Jumbo. The water deep and fresh up to the point at which MaRobert was obliged to turn. They saw reeds and rushes only in front of them and, about 6 miles to their North, a line of cocoa nut palms stretched along what may have been the Luabo. Some high land also was seen.

26*th*. Came down to the branch which stretches away to the N.W., the MaRobert having gone up to explore it and see if there is any passage for herself, if not for the Pearl. Reported, after two days' absence, that, after ascending about 50 miles, this branch also ended in reeds and rushes which could not be penetrated. Water sweet, deep, and flowing fast, even at the point at which they turned.

27*th*. While waiting for the tide this morning a canoe containing five natives and one half-caste Portuguese came up the river. On coming on board he informed us that this river is called Luawe and higher up the Zamgue, but no pathway exists between it and the Luabo. Descended to mouth and found H.M. steamer Hermes waiting for us outside. It is remarkable that in this river we have an abundant flow of fresh water from a point about ten miles from its confluence with the sea till about seventy from the same point. We have discovered, if not all we wanted, a good harbour of refuge for any vessel drawing about twelve feet. She could easily cross the bar and, when in, lie securely and refit by heaving down. Wood and water in abundance. It would be invaluable in the Cape Colony.

29*th May*, 1858. Hermes came close in a signalized, 'Have

important intelligence to communicate. Natives—have—beaten—off—Portuguese—from—every—station.'

It is well this took place before we entered the river, as the blame would have been laid to our account.

30th May. Left MaRobert in Harbour and came out to Hermes. Captain Gordon came on board with letters from Quilimane. The Rebellion of Mariano, a half-cast[e] who has a stockade at the mouth of the Shiré. As Major Sicard offers me the use of his house at Tette, I conclude that the fort is still held by the Portuguese, but the

31st May. commandants of Senna and Tette are all at Kilimane and the Governor of Mosambique is expected, with fifty soldiers, to assist in an attack on Mariano.

Written on 8th June, 1858. We proceeded to the mouth of Parker's Luabo and I saw a double line of breakers right across the entrance. As it was blowing pretty freshly, we waited two days: then proceeded to sound the bar. The breakers of the first line were so heavy that we could not enter at any point, but supposing that a passage might exist on the West, I went with Mr Skead in the Hermes' cutter and found the water quite fresh; still no passage. As it was getting dark, the Hermes kindly followed us and fired two guns to recall us. We spent that night on board the Hermes and next day went seven miles West to what the Master of the Grecian called Mamdo. Here there is an excellent bar and we ran in, and found a large harbour completely sheltered by a low sandy island.

4th June. Left early this morning with Mr Skead, Dr Ord, in the Hermes' cutter. After proceeding up this river about 15 miles, a native came off and, being asked if this river communicated with the Zambesi, he answered in the affirmative, and further [said] that he would shew it to us. Taking him into the cutter, we went up to another village belonging to Azevedo. There we were informed that better canal, as they called it, than that which our first friend pointed out on the left, existed on our right. We found that on the right, named the Kongone, about 5 miles long, very narrow but deep. On reaching the main stream we saw the sea in the distance and about seven miles off. A species of Pandanus, the first we had seen in Africa, with its tall graceful stems resembling village church spires, lent beauty to the scene. Ascending the main stream till we got to another branch communicating with that we had left, we began our descent towards the Pearl. Reaching that next morning, the MaRobert meeting us about 8 miles up and towing us down, we set forth to explore the right-hand branch.

5th June. We went by the same canal, viz., Kongone, into the Zambesi and descended that to the mouth of the Doto, as the right-

hand branch is called, near its commencement. It is broad but shallow, so we gave it up. Below it, as we came down the Zambesi, we found this river 2½ miles broad, being spread out by islands—Tewarewe and Simbo. On the left, as we came down, we saw it giving off the Chinde, said to go to Kilemane. Farther down we saw a barracoon and another small branch, then Parker's Muselo, properly Timbwe, a magnificent river; but after trying its bar for two days, we found it as difficult as Parker's Luabo. If properly surveyed, I have no doubt but a good entrance would be found. A dead wood point is found on the West side of all branches, which flow out of the Zambesi to the West and on the East-side of those that flow Easterly.

S.S. *Pearl*, *9th June*, 1858

Captain Gordon, R.N.

Sir,

In addition to the information which you received at Kilimane respecting the expulsion of the Portuguese, I have been told by several intelligent natives living on the Delta that the river between Mazaro and Senna is now closed against the Portuguese and that the lower part of the river is in such a disordered state that it would be quite imprudent for the expedition to form a dépôt for the luggage anywhere below Tette. There, with the exception of the authorities having fled through fear, affairs remain very much in the same position as they were when I came down in 1856. I therefore beg leave to ask your assistance to carry the Pearl safely through the disturbed district.

It will be our duty to remain properly neutral and I have no doubt but that it will be in our power to be friendly with both parties, as soon as the natives are assured that we are English. Yet, as some time may elapse before we get into communication with them, should you favour us with a boat's crew and enable the Pearl to avoid being placed in a helpless position, you will render an invaluable service to the Expedition.

As Captain Lyster, the senior naval officer at Simon's Bay, stated to me that we might have the Pinnace of the Hermes for the use of the Expedition in the river, and as she would, with her sails, enable us (in the event of an accident happening to the MaRobert) to carry out the object of our enterprise without being dependent on the Portuguese, I shall be obliged by you[1] with this part of my request also.

I am, etc.,

David Livingstone

[1] So in the original.

9th June, 1858. Having handed the above letter to Captain Gordon, he at once gave me the Pinnace and her crew, and volunteered his own services up the river. He has done every thing required of him in the most cordial and handsome manner and shewed the greatest interest in the success of the Expedition.

We found the natives generally cultivating rice. There are cocoanut trees in clumps at different parts and occasionally groups of bananas, but all complain of their gardens and houses having been robbed by the followers of Mariano. Cotton of excellent quality was found growing by Mr C. Livingstone in one of the gardens, and one of the people with whom I conversed said that they would gladly cultivate it for sale. A species of Hibiscus yields an excellent strong fibre and, as it lines the banks, it could be procured in any quantity. It is now converted into strong ropes. In many parts of the river the trees are festooned by a species of orchilla weed.

In thinking on the immense body of water which is drained out of the Interior by the Zambesi I imagine that the spreading out which takes place in the delta has prevented its amount being realized by navigators passing along the coast. The main stream, or Luabo, has an impassable barrier at its mouth. It has formed a promontory and, the prevailing winds being from the South-East and North-East, the bar has the swell of the ocean constantly upon it. This damming up of the main stream has naturally led to the pent-up waters find[ing] outlets for themselves sideways. The Timbue (Muselo of Parker) resembles the main stream most closely. It is a mile wide at the mouth, but has formed itself into a promontory too—two long spits running out from it more than a mile. The Kongone and Doto, which unite and form this which is named either Kongone or Tangalane river, take away a large body of water on the Southern side, and so does the Luawe still farther southwards. Several other streams are given off and these are connecting links, any of which could be made into magnificent canals by a few stakes being driven in opposite the departing branches, and thereby direct larger supplies of water, of which in the main stream there is no lack. This would clear out their channels. The branches which lie in the reeds North and South of the main stream have good harbours and that of the river is excellent. So is the Catrina. And there is no doubt but, were a surveying ship placed on the coast, it would find others.

Mr Azevedo has come down the Kongone several times and I suspect that they and others have been kept secret in order to allow them to carry on their traffic completely free from observation.

10*th June*, 1858. Leaving the harbour of Kongone and ascend-

ing twenty miles, we entered the canal which after five miles leads us into the Zambesi. It is narrow—only 30 yards in some parts—but a wide fringe of grass flats on the margins for several yards into each side. When the Pearl, navigated with expert skill by Captain Duncan,[1] but just as we were emerging on to the waters of the Zambesi she struck on a bank and remained until the evening of the 11th. Several natives came forward with wax for sale, and abundance of rice, ground-nuts and bananas were offered. One man brought a basket of limes. Sweet potatoes were shewn—in small quantity, but all complain of the want of goods for barter on account of the ravages of war. The wax was sold at almost a penny per pound in calico and, as we gave as much as they wanted, it is probable that we were much more extravagant than the Portuguese have been.

All the people are very black, but in very good condition, as they have plenty of fish in the river and much game in the plains around them. They do not shew much fear of the steamer: several have been coaling all morning.

11th June, 1858. On getting off the bank at the mouth of the Kongone we entered and sailed up the main stream, the MaRobert being about four hundred yards ahead of us, as this part of the channel is deep and fairly laid down in a straight line by Mr Skead. When Captain Bedingfeld went on a winding course and very slow, the Pearl kept a straight one, intending to pass him and anchor. The MaRobert came alongside and, when I offered to give my orders for the morning, Captain Bedingfeld said to me that he would come aboard. This he did and immediately commenced in an overbearing bullying way another of those altercations with which he has disturbed the harmony of the ship three times already. As he directed his observations to me I said, 'Captain Bedingfeld, I must have no more of these altercations and I won't have them'. He replied, 'Then I shall give it to you on paper'. 'Very well', replied I, 'you must do it in a civil way, even on paper'. In the evening I received the following letter, though Mr Skead tried to dissuade him from sending it.

Captain Bedingfeld's letter to Dr Livingstone[2]

MaRobert, ZAMBESI,
June 11th, 1858

SIR, I feel it my duty, after what has happened to-day and in order that my professional character may not be injured, to state to

[1] So in the original.

[2] *Attested*: 'A true copy. Charles Livingstone.'

you in writing how much I feel hurt at the want of confidence you have shown towards me since we arrived in these Rivers.

Having been appointed to the Expedition under your command from my experience in river navigations to advise and assist you (in the first place) in getting the Expedition up to Tete without delay and without risk to the Colonial vessel Pearl, I beg most respectfully to state that in my opinion most unnecessary delay has occurred and the Pearl endangered by not following the precautions I have from time to time advised, and I must most earnestly point out to you that I cannot in any way be held responsible for anything that may happen to the Pearl or any delay to the Expedition that may occur from her running on shore in a falling river unless my advice is followed.

I cannot but feel deeply that, knowing as you do the opinions of men high in my own service as to my professional character, you should have so soon and at a time when I supposed I should have been of the greatest service to you, have slighted me in the way you have done and I trust, if your confidence in me is shaken, as it appears to be, you will allow me to return to England as soon as it can be done without inconvenience to the Public Service.

You can hardly suppose, Sir, that an officer of any standing can be spoken to Publicly in the way you thought it necessary to speak to me this evening without remonstrance. I feel that I have done my duty and exerted myself to the utmost to forward the objects of the Expedition and I intend to do so until an opportunity occurs when you can dispense with my services. In the meantime my position with the junior members of the Expedition must be considerably injured and I should feel obliged if you would, as much as possible, give me your orders in writing, that I may have it in my power to show that I have carried them out to the utmost of my power.

In conclusion I beg to express my regret should I, in the warmth of my temper at seeing the public service trifled with, have said anything you may have thought disrespectful, but I should not have done my duty had I not spoken to you.

I believe that if the duty on board the Pearl had been carried out as it ought to have been done, we should have ere this have been at Senna (if there is a passage). I have the honour to be, Sir, your obd Hum^le^ Servant

NORMAN B. BEDINGFELD
Commander, R.N.

To David Livingstone Esq
H.M. Consul, etc. etc.

SCREW STEAMER *Pearl*[1]
12th June, 1858

Commander Bedingfeld, R.N.

SIR, In reply to your letter of yesterday I have to remark that I felt it to be my duty to interpose two decided sentences in order to prevent another of those unseemly altercations yesterday in which you have several times of late indulged in with the Captain of the Pearl while his ship was in difficulty, and also to inform you that I cannot allow any more of these ebullitions of temper in my presence. I now repeat the order on paper, and further enjoin you, as I formerly did orally, in the event of any difficulty again happening to the Pearl, to avoid recrimination and lend your best energies to overcome it.

You inform me ' that in your opinion most unnecessary delay has occurred and the Pearl endangered by not following the precautions you have from time to time advised ' and you ' must earnestly point out to me that you cannot in any way be held responsible for anything that may happen to the Pearl or any delay to the Expedition that may occur from her running on shore in a falling river, unless your advice is followed '. If fretting at Captain Washington's[2] declaration to the effect that the responsibility did not rest on you and ill tempered criticisms on Captain Duncan's seamanship can be termed ' precautions ', this sentence may pass, but as no calm deliberate advice was ever given or disregarded I am utterly at a loss to comprehend what you mean, unless the words are strung together for effect in view of ulterior proceedings; and as you are perfectly aware that the ultimate responsibility rests on me, and yet when we come to the most difficult part of our navigation, you desire me to allow you to return to England or else admit that you will bear no responsibility in the execution of your duty, unless your advice is supreme, to the exclusion of that of two eminent naval officers who are generously favouring me with theirs, I think it to be my duty frankly to grant your request and I shall relieve you from your command and connections with the Expedition when the boat of the Hermes leaves the river.

[1] *Marginal note :* ' Dr Livingstone's/reply '. A true copy. /Charles Livingstone. */To this Livingstone added* ' This letter was not delivered in consequence of the letter of Bedingfeld being withdrawn '.

[2] John Washington (1800–1863) joined the navy in 1812, travelled much between 1822 and 1853, served as secretary to the Royal Geographical Society 1836–1841, was made Captain in 1842 and carried out survey work along the east coast till 1847. He was assistant hydrographer to the Admiralty and became hydrographer in 1855. He was deputed to act for the Government in helping Livingstone to equip his Zambezi expedition and gave the explorer wholehearted assistance. In 1862 he was made rear-admiral.

I am sorry to part with you thus, as our personal intercourse has uniformly been of the most amicable kind, but as you kick at the very first instance your overbearance has been curbed, and the success of the Expedition depends on the good tempered obedience of all its members, I feel compelled to do that of which I sincerely lament the necessity.

Until the period indicated it will be your duty to pilot the Pearl by means of the MaRobert by shewing the deepest channel and keeping between three and four hundred yards ahead of her. You will signalise the depth of water as heretofore, and whenever the water shoals to two fathoms, exhibit the danger signal, then turn off at once to right angles to your course to seek deep water, which having been found, return to within one hundred yards of the Pearl, shewing that no bank lies between the part at which you turned off and the ship. Have your steam up and be ready to pilot the Pearl (unless contrary orders are given) every morning by daybreak.

I am your most obedient servant

DAVID LIVINGSTONE

H.M. Consul Commanding the Zambesi Expedition

28*th June*, 1858. After writing the foregoing letter I thought it prudent to wait a few days before delivering it and, as it also appeared advisable to examine the river as far as Mazaro before taking the Pearl into what might be a hostile territory, we left her below the Chinde river and in company with Captain Gordon and Mr Thornton we proceeded up the river. When we got over the first five miles the river became finer, the reaches being much longer and deeper. . . .[1] Captain Gordon remarked that ' the river was more like an inland sea than a river ', and it did look grand; but the broader parts were the worst, for while the narrower parts, or those about one mile broad, were from five to seven fathoms, those where it was very broad or from 2½ to 1½ broad were not often more than 12 feet in the channel. On reaching Maruru, the house of Mr Azevedo, it was found plundered and all the outhouses burned. When we came near Mazaro we found scouts sent out and about 200 men well armed with guns, bows and arrows, ready to receive us as their foes, the Portuguese; but, on my calling out that we were English and pointing to the English flag, they gave a shout and we soon saw them running down to the water's edge with bananas and fowls for sale. Some came on board and we went

[1] An indistinct passage of five words : ? ' till the crosses were difficult '.

ashore with them and explained our objects in coming. Some professed gladness at seeing us, while others looked very suspicious and would neither lay aside their arms nor sit down to talk. However after speaking to those who sat down, and desiring the headman to send a message to Manoel, the son-in-law of Bonga, that I had arrived and would come up the river, we went to look at the Mutu. We found the dry bed three feet above the level of the water in the Zambesi. It is about ten feet broad and filled with grass and reeds. This is the famous 'boca do Rio' or mouth of the river. We perceived that the river had still 13 ft to fall before it reached the level at which Parker saw it, and Gordon thinks from this that it always must have a thirteen foot channel.

When the natives came aboard it was proposed to give them rum, as it agreed with Captain Bedingfeld's plan of dealing with the natives on the west coast. One of them got his mouth to the can in which the liquor was, and could scarcely be separated till he had taken enough to make him quite drunk. I resolved never to allow any thing of the kind again. The English shall not appear by this Expedition to be a set of drunkards making others drunk.

We took 20 of the rebels with us to the ship and on the way Captain Gordon spoke of Bedingfeld's letter and lamented the hastiness with which he had acted, offering at the same time to act as mediator in withdrawing the letter. After considering well this, I thought that it would not be doing as I would wish to be done by if I did not give him the option. I did so and in the evening Bedingfeld spoke to me and I gave back the letter. Otherwise I should certainly have sent him home by the Hermes.

Having arrived at the Pearl a council of the whole party was called and, seeing that the river was falling at the rate of nearly ten inches per day, that time would be required for the survey which would be necessary, the Pearl drawing 9 feet 7 in., very long, 160 ft, does not back readily nor obey her helm except when at full speed, and moreover her provisions were expended and we were under stringent orders to see that she ran no risk of detention in the river, we all came to the conclusion that it was best to land the iron house and good[s] on an island and allow the Pearl to go on her way to Ceylon. Captain Gordon's engineer and carpenter volunteered to go and assist us with the house. We fixed on the island of Nyika, put the half of the house up in three days and then, by successive trips, brought up all our luggage. A weight was removed from my mind at once, for I knew that the Foreign Office must, in the event of my detaining the Pearl, lay out £10,000 to buy a new one for the Colonial Office. I had promised Captain Duncan to see him safe

out of the river, and the following letter was sent me by Bedingfeld:[1]

STEAM LAUNCH *MaRobert*
ZAMBESI RIVER, *June 26th*, 1858

SIR, As you intend taking the Steam Launch down to the bar of the Congone I beg most respectfully to inform you that it is my opinion, backed by that of Mr Rae, the Engineer, that owing to the incessant work the Steam Launch has had since she came into these rivers, the steam having been up every day, with one exception, since she first got under weigh and the heavy towing (for which she is not at all fitted) having considerably shaken her, together with the fact that we have not had a single day to paint her rivet heads since she commenced work, that she will hardly last to tow the luggage of the Expedition up to Tette.

With these circumstances I consider it my duty to point out to you the great delay to the Expedition that will occur should the Launch break down before the luggage is removed from the Island and that all unnecessary work with her should be avoided.

Capt. Gordon of H.M.S. Hermes, with Mr Skead and Dr Ord, with 20 men and an additional boat can see the Pearl over the bar, and the Launch can be of no service; and I consider it due to myself and the Engineer, who is more immediately under my command, to state this officially, as considerable blame would otherwise attach to us should the Launch break down. I must state that I consider the conduct of the Master of the Pearl has already much retarded the Public Service and his wish that the Launch should go down with him is another instance of his disregard to the interest of the Expedition.

I regret exceedingly that I should be obliged thus officially to remonstrate, but the discourteous way in which you received my advice to-day would make me more anxious that my conduct may be understood and I beg most respectfully but pointedly to deny the imputations you were pleased to make on another occasion that private resentment against the Master of the Pearl influenced my public conduct.

I have the honour to be
Sir, your obd Humble Servant
NORMAN B. BEDINGFELD
Commander, R.N.

Dr Livingstone
H.M. Consul in Command of Zambesi Expedition.

[1] *Marginal note:* Letter from Commander Bedingfeld, R.N. to Dr Livingstone. A true copy. Charles Livingstone. Attest.

[1] Island of Nyika,
28th June, 1858

Commander Bedingfeld, R.N.

Sir, In reply to your official letter containing a protest against employing the Launch in seeing the Pearl safe out of the river—an uncalled-for stricture on the conduct of the Master of the Pearl—and a return to the subject of my having been obliged to put a stop to your repeated public altercations with that individual, I have to say that I have been unable until now to return an answer and there are some reasons for considering it doubtful whether it is a duty to notice it at all. Motives however of sincere friendship and great respect induce me to say thus much.

Before speaking to me about going down to the mouth of the river you uttered (in the presence of witnesses) certain boasts to Capt. Duncan that the MaRobert should not go down, even though I had promised it. You then told me that the rivet heads were rusting off. I mentioned my promise, which everyone knows cannot be broken without getting the consent of the individual to whom the promise was made: but you, feeling that you had 'committed' yourself, proceeded to insist on your boasts being carried out. I did not then know your reasons and very properly told you that you had no right to dictate. Your duty was to do as you were bidden. I spoke to Captain Duncan and he at once released me from my promise and all was settled some hours before your letter appeared.

On examination this morning I found not one rivet is rusting its head off. This was clearly a mistake.

But now that Captain Duncan is gone I hope that you will be disposed to give that consideration to the rest of your companions which you will wish to be awarded for yourself. A pretty extensive acquaintance with African Expeditions enables me to offer a hint which, if you take it in the same frank and friendly spirit in which it is offered, you will on some future day thank me and smile at the puerilities which now afflict you. With the change of climate there is often a peculiar condition of the bowels which makes the individual imagine all manner of things in others. Now I earnestly and most respectfully recommend you try a little aperient medicine occasionally and you will find it much more soothing than writing official letters. I shall strive to treat you with the same respect as heretofore, but at the same time other thoughts and duties are in our line than long rigmarole letters to shew our friends at home.

I am etc., David Livingstone

[1] *Marginal note :* Dr Livingstone's reply to the above letter of Commander Bedingfeld. A true copy. Charles Livingstone/ Attest.

[1] S.S. *Pearl*, Zambesi River,
June 25th, 1858

My Dear Sir,

You expressed your intention yesterday of piloting the Pearl to the river's mouth with the Launch, if I thought it necessary. In talking with Capt Bedingfeld last night he declared that the Launch should not come down. I said that I had your word for it and that I felt very easy about it. He then said, 'She shall not go down, if I can help it'. I answered, 'Well, I was promised that, if I got the Pearl up as far as possible, I should have the advantage of her pilotage going back, and I think that, having fulfilled my part of it, it will be shabby if you draw back from yours'. 'I don't care what you think'. Capt. Gordon stood beside him and he turned sharp round with 'Pish! Pish!' and said something quietly to him. 'I have to get the Expedition up the river', I returned. 'I can assure you that, whether you like it or not, the Launch shall come down.' I give you the affair as it took place, for Capt. Bedingfeld has been saying to several people that I have done all I can to delay the Expedition or something to that effect. Now I should be very sorry if any one conceived that you agreed with him in this belief. From the feeling [he] displays, I fear that he will point to the fact of the Launch *not* going down as a proof that you adopted his opinion in the matter. I thank you most heartily for the certificate you have given me of your satisfaction of my performance of my duty and, wishing you every success in your arduous undertaking,

I beg to subscribe myself, respectfully and sincerely
yours

John Duncan

On returning to the Pearl I requested Captain Duncan to give me the particulars in ink: he gave the foregoing and he was confirmed by Mr C. Livingstone, who heard the altercations. Captain Duncan is a well-mannered agreeable gentleman and gave the whole party undivided satisfaction. Bedingfeld, who is greatly his inferior, began with bantering about the merchant service and then lost his temper.

23 *June*. We were visited by three Portuguese bearing a letter from Mr Valle who is the officer who came round to meet me on my approach to Tete, 4th March, as he says, 1856. He invited me

[1] *Marginal note*: Capt. John Duncan's letter to Dr Livingstone. A true copy. Charles Livingstone, attest.

to come up to a group of palm trees opposite Mazaro for protection, but this I declined, as I wish not to have any thing to do with either the native or Portuguese quarrels.

25th June. A lemur, or Madagascar cat, was shot at the anchorage of the Pearl. This Hieheree is the first instance known, for great difficulty has been felt by naturalists in accounting for the Malagasy fauna. It is supposed to be quite distinct from the African. A sword-fish was caught in the river and there are electric fishes too. The following opinions were given at my request by Captains Gordon and Bedingfeld.

[1] Steam Vessel *Pearl*
River Luabo, *June 23rd*, 1858

Sir,

Having accompanied you from the mouth of Luabo to Mazaro —I beg according to your request to offer the following remarks on the general capabilities of the river for commercial purposes.

The main outlets of the Zambesi, or Luabo, do not possess the same facilities of entrance as a small branch named 'Congone' which enters the sea a few miles to the westward. The Bar of this river is very good—the course of it being straight and well defined with about 13 feet water in the shallowest part at half tide, and good anchorage in 5 fathoms inside. The 'Congone' communicates with the main river by a narrow and deep channel of 4 miles in length, and about 12 miles from the sea with a depth of about 2 fathoms throughout.

Between this point and Mazaro, the Luabo is a river of great breadth, with many islands in its course and a depth of water from 2 to 5 fathoms the whole distance between the islands—which would require some time to survey with sufficient accuracy to allow a vessel drawing 9 feet water to ascend in safety. It was the want of time for this survey which prevented the 'Pearl' from proceeding much further up than the canal of communication between the 'Congone' and 'Luabo'. The banks of the river being sandy, and the absence of rank vegetation and trees, renders the climate very healthy during the dry season and during the 'Pearl' stay of six weeks inside the river no case of fever has occurred although the men have been constantly employed in the sun and slept at night in open boats. From the information supplied by natives I have reason to believe that during the dry season within the influence of

[1] *Marginal note :* Letter from Capt. Gordon of H.M.S. Hermes to Dr Livingstone. A true copy, Charles Livingstone.

the tides—there is the same depth of water in the lower part of the river at spring tides as in the wet season.

I am Sir

Your most obedient servant

N. H. Gordon

Commander H.M.S. Hermes

[1] Steam Launch *MaRobert*
Zambesi, *June*, 1858

Sir,

In compliance with your request I give you herewith as far as I am able my opinion as to the capability of the Zambesi for the purposes of navigation.

You are aware that owing to the incessant work with the steam launch I have been obliged to leave the plan of the river and the observations entirely to Mr Skead the Admiralty Surveyor and when worked upon his way to the Cape he will be better able to give a good idea of the river than I can now give. There can be little doubt however that as far as we have seen (viz. the Mazaro of the Mutu) there would be little or no difficulty for a steamer drawing from 4 to 6 feet, paddle wheels and from 80 to 100 feet long to go up at any time.

I think it quite possible to have even taken the Pearl up had we had time to examine the river properly but that could not have been done under some months and the river would then have fallen too much to have got her down again without damage. I was greatly surprised at the difference between this river and those on the west coast of Africa, the healthy looking high banks and the absence of the mangrove, except close to the sea coast, sand banks instead of steaming black slime, and a climate more like that of Italy than any I can compare it to and the fact that with all the hard work and exposure in exploring for the right river, getting up the luggage etc etc. we have not had a single case of fever, are facts that speak for themselves. I should not have the slightest hesitation myself in navigating it at any season although I have not yet had any experience of the (so called) sickly season. The Bar of the Maindo (or Congone) is the best we have seen and Mr Skead had been able to get a good plan of it.

There can be little difficulty in getting into the Zambesi the way we came and I have no doubt that when we know the river better we shall find better and deeper channels than we yet know, as it can

[1] *Marginal note :* Letter from Capt. Bedingfeld to Dr Livingstone. A true copy. Charles Livingstone. Bedingfeld's incoherences are past mending.

hardly be possible that we should find the best at first running up a river in some parts between two or three miles wide with an average current of 2½ knots an hour. As you are aware the natives told us that the worst part of the river was between the Bar and the Mazaro, that after that the navigation became easy.

So I hope that after our first cargo up to Tete we shall be able to give a still better account of the upper part of the river. Should it please God to give us health and strength I trust by the middle of December we shall have the whole of our luggage as far as Tete and we can then (should you deem it advisable owing to the disturbed state of the country) run down to the coast with dispatches with little delay.

I have the honour to be Sir
Your Obd. Humble Servant
NORMAN B. BEDINGFELD
Commander R.N.

[1] *MaRobert*, EXPEDITION ISLAND,[2]
June 30th, 1858

SIR, Since it is at your own request that I thus trouble you with another rigmarole letter, I hope you will have patience to read it to the end, and I sincerely trust it will be the last that will pass between us. I withdrew my first letter offering my resignation (as soon as it could be permitted without inconvenience to the Public Service) as I thought it possible, and as you assured me, the slight I complained of might not have been intended on your part and I sincerely hoped that nothing more unpleasant would have occurred between us. I did my duty to the utmost of my power and I think that even you, Sir, cannot complain of the time taken to convey the luggage up from the Pearl. Upon the report of the Engineer, Mr Rae, as well as my own judgement, I ventured to remonstrate upon any unnecessary work for the Launch, as I conceived going again down the river with the Pearl to be, and I was fully borne out in my opinion by Capt. Gordon of H.M.S. Hermes. Your letter in answer to that remonstrance I must say is the most insulting I ever received and I cannot help answering some of the statements you there make. That I made any boast to the Master of the Pearl I deny and I must confess I do not understand the term. The conversation that did pass, as far as I can remember, when[3] he, in his usual impertinent manner, asked me 'Why I was not going to leave the pinnace behind at the island?' was just that I told him I should bring her

[1] *Marginal note:* Letter from Capt. Bedingfeld to Dr Livingstone. A true copy, Charles Livingstone.

[2] Nyika.

[3] So in the original.

down for a load of coals, he then said, ' Well, but you are going down the river with us? ' I replied, ' I hope not '. ' Well, I shall think it very shabby, for I've got the Doctor's promise '. I said, ' I don't care much what *you* think. She certainly won't go if I can prevent it, for I can't see any necessity for it ', and, as I walked away, he said, ' She *shall* go in spite of you yet.' That this was any boast on my part I can't quite understand. It was always my opinion that your promise (if it can be called so) was given under totally different circumstances, when there was no other medical man to go down with them, and it was not supposed that the whole of our luggage would have to be landed a few miles from the mouth of the river, and that the success of the Expedition would mainly depend upon the Launch holding together until the luggage could be got through the unhealthy part of the River. I venture to say that no Engineer, knowing her construction and the work she has to yet perform, with the changes and delays that may happen on an unknown river, with a strong current and a heavy boat to tow, would be bold enough to say she would last through it. With regard to the rivets I beg to state I was not mistaken about them, as the Engineer will tell you, and my attention was first called to them by the Engineer of the Pearl who told me, ' if I did not soon paint the rivet heads would rust off.' On painting the Launch I found many of them very rusty and called Mr Rae's attention to them and, to the best of my judgement, she was not painted until it became highly imprudent to let her go any longer.

I can boldly assert that I have tried my utmost to get the Expedition on to its destination and, knowing the value of the time that I considered wasted, I may have appeared to you to be always finding fault. With regard to the uncalled-for stricture on the conduct of Mr Duncan, Master of the Pearl, I must say with all respect I do not consider you a judge in matters purely nautical: it was the opinion of Capt. Gordon as well as myself.

I am at a loss to conceive what you mean by the remark you make about my companions ' giving to my companions that consideration I should wish awarded to myself '. I am not aware that I have shewn any want of consideration to any of them, unless the wish to preserve the stores of the Expedition to their proper uses and the endeavour to keep the launch clean and fit for service has been so in your opinion. The latter part of your letter, I need scarcely remark, had been better addressed to a child. That my letter should have come to you after you had decided not to go down the river is not to be wondered at, as you seldom condescend to let me know your plans, and I heard it in the usual way (after my letter was out)

through Mr Rae from the Master of the Pearl. Had you sent for me and told me, you never would have had it; and most of the misunderstandings would have been avoided and the Expedition benefited, had you treated me as your second in command and allowed me to know your plans and see your wishes carried out, at *least* as far as the getting to our destination, which, I think, concerns me more than any other member of the Expedition. I do most earnestly hope that for the great cause we have both at heart, that of spreading civilization and the gospel among the heathen far in the interior, we may pull together until an opportunity offers of your getting a better man, or one that you will like better, when I will gladly return to England. In the meantime I will do my best to carry out your wishes as far as I know them, and I trust I shall go home feeling I have done my duty, however unpleasantly situated and disappointed at finding myself position[1] anything but what I expected it would have been when I volunteered. I regret much if I have allowed my temper to shew more than was advisable, but you must admit that it was highly irritating to see you preferring the opinion of a man to mine (in matters for which I was principally sent out) and who was behind a counter and a steward's boy long after I had obtained by first commission in H.M.[2] and seen much river service and who had treated me with marked disrespect and grossly insulted another member of the Expedition on one or two occasions. I have the honour to be, Sir,

Your Obd. Humble Servant

NORMAN B. BEDINGFELD
Commander, R.N.

EXPEDITION ISLAND,
ZAMBESI, 31*st July*, 1858

Commander Bedingfeld, R.N.

SIR, As you have tendered your resignation and also expressed regret that it was not accepted, I have felt it to be my duty to make arrangements for your safe conveyance to Quilimane in a few weeks hence, and there you will be provided with comfortable lodgings until the arrival of one of H.M. cruisers will allow of your departure for the Cape, where the Admiral will provide you a passage to England in one of the Government vessels. You are not to incur any expense whatever on account of Her Majesty's Government on this Expedition.

Your resignation is this day accepted and you are from this date

[1] So in the original: *perhaps* at finding myself in a position *etc.*
[2] Word illegible: ? H.M. Navy.

MaRobert

no longer a member of the Zambesi Expedition. You are required to deliver into the care of Dr Kirk all public property, including the chart of the river for further use and all the scientific observations you may have made. And, as a few weeks may elapse before Colonel Nunes can convey you to Quilimane, your comfort will be best provided for by your remaining on this island till I find you may remove.

A supply of Quinine is at your service, should you think it proper to adopt the sanitary precautions followed by the rest of the Expedition.

I am your obedient Servant

DAVID LIVINGSTONE

H.B.M's Consul commanding Zambesi Expedition.

31*st July*, 1858. In consequence of Commander Bedingfeld having tended his resignation a second time in writing and also expressed twice to Dr Livingstone his sorrow that his first resignation had not been accepted, and moreover refused to have anything to do with the Kroomen's provisions which, since we have left the Cape, he has allowed to be expended at the pleasure of the men, and also shewed such an example of insubordination in apparently doing his duty while actually doing the opposite, Dr Livingstone felt that the only means of preventing the entire disorganization of the Expedition was to accept Comr. Bedingfeld's resignation in the above letter delivered on the 31st July, '58; on receiving which he commenced dancing and singing before the Engineer and the ship's company.[1]

MaRobert, EXPEDITION ISLAND,
July 31*st*, 1858

SIR,

I beg to acknowledge the receipt of your letter of to-day's date by which you suspend me from duty, directing me to wait some weeks on the Island until an opportunity offers for my being sent to Quilimane, a notoriously unhealthy place, to wait there until another opportunity offers of a man-of-war calling in: a *very* unlikely occurence, the country between this and Quilimane being in a state of war and unsafe to travel, as you are perfectly aware. Your offer of Quinine I can fully appreciate. I beg to call your attention to the fact that I have not refused to do my duty and have never disobeyed any of your lawful commands and I shall call upon others to witness it. I shall consider myself a member of the Expedition until properly provided with a passage to England and

[1] This paragraph is in Charles Livingstone's hand.

I object to go to Quilimane under the present circumstances. I have the honour to be

Sir,

Your ob. Humb. Servant

NORMAN B. BEDINGFELD

To David Livingstone Esq.
H.M. Consul.

Commander Bedingfeld is well aware, from a copy of Dr L's instructions placed at his service, that H.M's cruizers are ordered to call at Quilimane every three months and he also knows that he is expected to go thither only when it is safe for him to accompany Colonel Nunes and as the whole country here is equally unhealthy in the sickly season and his unofficer-like conduct renders it imperatively necessary that he should not accompany the Expedition up the river, he may either go to Quilimane or remain elsewhere, according to his pleasure. Quinine is again offered him, as it has been repeatedly, though for his own reasons he has refused it for some weeks past.

Dr L. shewed his letter of acceptance of Com. B's resignation to Dr Kirk, Mr Livingstone and Mr Thornton, and they at once expressed their conviction that this was the only thing that could save the Expedition from complete disorganization, if indeed the infection of his bad example had not spread too far already among the Kroomen. Com. Bedingfeld's assertion of being still a member of the Expedition is intended to raise a claim for his pay: no answer is returned to it as the point will be decided by H.M's Foreign Office.

DAVID LIVINGSTONE[1]

On the return of Dr L. to Expedition Island Cr Bedingfeld handed him the following letter in reply to this note:

EXPEDITION ISLAND, *August 6th*, 1858

SIR,

Having by your orders, in the presence of a witness sent by you, given over all the M.S. and Books supplied to me by the Admiralty and wishing to make observations as long as I remain in this country (likely to be some months), I request I may be supplied with the sextant, Artificial Horizon and Prismatic Compass I have been using, with the Nautical Almanac and case of instruments and

[1] This transcript, in Charles Livingstone's hand, has neither date nor address. The signature is Livingstone's autograph, as are the rest of the ensuing entries.

one of the Pocket Chronometers. I have also to request that the Colt's revolver with a supply of ammunition may be left in my charge as long as I am in a country where it is necessary to wear arms.

I intend to send my case through you to the Governor of the Cape of Good Hope as soon as I receive a copy of the agreement as I requested.

I have the honour to be
Sir
Your most Obedt Humble Servant
NORMAN B. BEDINGFELD
Commander, R.N.

David Livingstone, Esq.
H.M. Consul
Zambesi Expedition.

EXPEDITION ISLAND,
12 *August*, 1858

[1] Cr Bedingfeld, R.N.
SIR,

In answer to your application for a sextant, artificial horizon, chronometer, Nautical Almanac, etc., etc., I beg to inform you that, having accepted your resignation on the 31st July, your pay and connection with the Zambesi Expedition on that day ceased, and I do not feel that I should be justified in lending the instruments furnished by H.M. Government for the use of the members to a private individual among the last acts of whose public service was allowing two of the chronometers to run down and set agoing again without entering it in the journal. A Colt's revolver and a supply of cartridges, however, will be placed at your service.

I do not consider it necessary to answer your assertion that my acceptance of your resignation is a suspension from duty and that you consider yourself a member of this Expedition until properly provided with a passage to England. I shall furnish the Mr Secretary of State for Foreign Affairs with proofs of your having tendered your resignation, and also with evidence of your having disobeyed my reasonable orders not to engage in another altercation with Captain Duncan, with having pointedly declared that you would have nothing to do with making a systematic arrangement for the expenditure of the Kroomen's provisions, though you had these men under your especial charge, with neglecting my order to

[1] *Marginal note in Livingstone's autograph :* Copy of Answer.

adopt some system for the regular cleaning of the ship and thereby leaving it in a state of disgraceful filthiness and the endangerment of the public health: and with proofs of various other breaches of duty whereby your agreement was broken and my acceptance of your resignation rendered the only means of saving the expedition from complete disorganization. I shall leave the case in his Lordship's hands.

As I have the honour of acting under the Authority of Her Majesty's Secretary of State for Foreign Affairs and he has been pleased to provide me with ample powers to cut short any course of insubordination which you, who declared in England that you '*would be delighted to serve under my command*', might think proper to adopt, it would clearly be improper in me to send (as you say you intend doing) your 'case through me,' to the Governor of the Cape as soon as you receive a copy of the agreement which you signed in London. Without intending the least disrespect to His Excellency, I should send it through the Foreign Office. Moreover your statement of the use you mean to apply the copy of the agreement to, though previously I intended to search for it among my baggage, induces me to decline giving you any countenance in the matter or encourage you to appear as not (without such copy) perfectly cognisant of its contents. The original is in London in safe keeping of the Admiralty.

By the instructions given to us by H.M. Government which were read in your presence and were always open to your inspection, we were informed that orders had been given for a vessel of war to call at Quilimane every three months to enquire for the Expedition, and it was arranged by Capt. Gordon that the Governor should hoist a red flag for a boat when any information from us had been received. Colonel Nunez engaged to provide for your safe conveyance to Kilimane and comfortable lodging there till a ship of war should call. I believe I have done all required in common reason for a case of disobedience of orders. Yours however is complicated with having tendered your resignation besides and, if you choose to disregard my arrangement, then my responsibility with respect to your future movements is at an end, and any expenses you may incur must be borne by yourself. You[1] are distinctly to understand that H.M. Government is not to be held liable to defray any expenses except those which I have sanctioned.

[1] Livingstone continues this letter in the left hand margins of this letter, working backwards and writing vertically. Of the next two pages the first repeats the opening of Despatch No. 10 to Lord Malmesbury and the second the final page of Livingstone's letter of August 12th to Bedingfeld. No reason for these repetitions suggests itself.

To-morrow (13 August) I take all the goods from the island and you are welcome to a passage in the Launch to Shupanga. There I leave you and you will be safely conveyed to Quilimane, probably about the end of the month.

I beg to acknowledge the receipt of a document purporting to be a Log of the MaRobert, written, with the exception of a few pages, *after* your resignation was accepted. It is retained as evidence.

I am etc. yours D. LIVINGSTONE, Consul.

Journal A.2

STEAM LAUNCH *MaRobert*—ZAMBESI RIVER
2nd August, 1858

Having accepted the resignation of Commander Bedingfeld on Saturday last the 31st ult., I loaded the pinnace and Launch and, taking Dr Kirk to aid me in tracing out Mr Thornton's sketch of the river, ⟨and⟩ got under weigh. We never had so much in them before, yet we came a good distance and anchored at a large spreading fig tree on the right bank. Mr Thornton's sketch is very good and we did not once require to apply to Bedingfeld's, though he gave it, after having at first refused it, as also to give any list of the public property in his charge. Dr Kirk mentioned to me that B. had called him and Mr Baines to sign a paper to the effect that they ' had never heard him refuse to obey any lawful commands ', but this they declined. He then requested them to sign one which said that ⟨that⟩ he said he was willing to go on. This they did. He was stalking about the island with a dagger in his belt when we left and is confident that we shall never get her up.

Dr Kirk thinks that the whole delta was deposited in water, then elevated, and there are now primary and secondary islands and banks in it.

3 *August* 1858. Slept at a large tree below the island of Mangarita and went on at 6½ A.M., through a fog which lasted ¾ hour after we started. We spread all sail and got on very well untill 1 P.M., when, in consequence of the breaking down of the bridge of the furnace, the steam went down and we were obliged to blow off the water in the boiler to cool it and get it rebuilt. Dr K. and I went to the bank for clay and got some very good stiff stuff under which a bed of reeds had been deposited, though it was at least 12

ft below the surface. There were masses of leaves in the bed and a shell of the same kind as now abounds in the country.

4th. Went on this morning early with all sails set, and at 11½ reached Shupanga, making the most rapid passage and the best, though we carried the heaviest load ever taken, and there was never one load carried before on which the vessel did not run aground more than once or twice.

Major Secard had cut a fine load of wood for us, and sent one dozen men to help to take out our cargo. Col[l] Galdino assisted to do the same and very soon we had all in the house of Shupanga. The Governor continues well and tells me that the colony of Mosambique costs the home Govt 42 contos of reis annually, that the 'Villa da Flor' has come out to survey the mouths of the Zambesi with a view of placing customs houses along it; that she comes 'full of wants', wood, provisions, etc. Viscount de Sá da Bandeira sent only two copies of the Muata Gazembe on it and ordered him to take advantage of my going past to re-establish Zumbo. He complains loudly of the want of funds—thinks of an English company to develope the resources of the country and has ordered the Villa da Flor to come into Zambesi by the Kongone to deliver up the artillery she has on board for them, and lend them what men they have to prosecute the war. We take on wood in the morning and go down again to the island.

5th August, 1858. We left Shupanga at 9½ A.M., a dense fog having prevented our starting until that time. Major Secard breakfasted with us and told me that Mr Azevedo had spoken to the Governor to accept my mediation and the proposition had been supported by himself, but the Governor had declined it. Perhaps a little reverse may dispose him to listen to reason. It is quite true that Mariano was made prisoner by treachery.

As I had taken up the Launch and made a better and quicker voyage with a heavier load than had ever been taken before, I thought it well for Dr Kirk to try his hand at bringing her back. This he did very successfully against a strong head wind and touched the ground only once. It is very much more difficult to come down than to go up a river safely, because in the latter case the current draws one on banks and it is more difficult to get off again. Dr K. got a fine specimen of Cahoutchouc, of which there is great abundance at Shupanga, as also one of Indigo. Columba root is found in immense quantities in the district and is said to be used as a mordant to certain colours, though not employed as a dye itself. Dr K. remarked, 'It is a splendid country'.

We made our passage down in less than 8 hours, our passage up

in 2 days exactly, and but for the breaking of the bridge, we should have done it in a day and a half.

Saw a hippopotamus out on the high bank of the river about noon in passage up and saw the same one again lying in a shoal place which did not cover his limbs. He sprawled down on his side, trying to cover himself with the water. When that failed he made for deep water but never put up his head near the steamer. I have never seen one make as if he would attack it.

The alligators often lie on the banks with their mouths wide open and apparently asleep. Does the lower jaw hang down? They are of a bright greenish yellow colour. The young, as was seen in one brought to our camp, strike furiously with their tail. I have often heard this asserted before, but never saw proof of its truth except in the case of an allied species, the Iguano. One I kept some time had a tail three feet long and struck at me with it with as much force as is given by a good smart blow of a switch. The Kroomen assert that the alligator always comes out of the water to die.

6th August, 1858. Loaded the canoe lent us by Major Secard and the Pinnace with the iron house and intend to take a trip up to Shupanga on Monday 9th. Major Secard informed me that a report came to Tete that I was on my way up and fo[u]r of my men[1] came at once down to Senna to meet me. When the war broke out they returned. They speak much of me and, he says, have much love to me.

Mr Baines got a little touch of sunstroke and was delirious. It came on again to-day and he has not appeared as usual for some time: to-night he is somewhat better.

Sunday, 8th August. Took the following set of altitudes yesterday for the purpose of rating the chronometers and loaded the Pinnace. Made fenders for the front and stern of Pinnace, as she has got some fearful knocks and makes water now from C/B's sudden stoppages and groundings. He never made a fender.[2]

8th. We remained here quietly. Had all the Kroomen up and examined to see if they were clean. All came to church afterwards and the cabin was quite full of them.

C.B. delivered up a list of public property and demanded a sextant, chronometer, etc., etc., as he considers himself still entitled to be called a member of the Expedition. I cannot part with the Instruments needed by the Expedition, as no others are to be had in this country.

Mr Baines very ill with headache, vomiting and thirst: will take him up tomorrow.

[1] Makololo. [2] The two pages of altitude calculations are here omitted.

Day following Baines was better.

9th August, 1858. The morning having been very foggy and damp, we could not see to move until 8 o'clock. We then sailed for Shupanga. It was very hot, there being no air stirring untill the afternoon, when a breeze sprang up and, as all sails were soon set, we got on well and now sleep at a square house near I[s]land of Donna Mangarita. We halted after dark, having made a good day's work, though, from having the large canoe of Major Secard in tow, I feared we should have been unable to move in the strong current, but I got her painter made short, so as to allow her to run in the broken water of the Pinnace, where she is little felt.

The scenery is uniformly dull, as the banks are nearly all of one height and covered with reeds and grass. Alligators bask at the points of sandbanks lazily in the sun until disturbed by steamer or a shot from our young men. Hippopotami put up their heads and snort, while geeze, herons, flamingos, pelicans and other aquatic birds rest on the sand banks. The work of skipper is not very hard: it requires only constant attention. I have not yet touched the ground with either the Launch or Pinnace.

10 *August*, 1858. Towing the large canoe of Major Secard in a perfectly still day has prevented our getting to Shupanga, but we sleep within three miles of it. Weather getting hotter every day. Clouds of smoke ascend in all directions, as this is the time for burning the grass. A white cloud is seen, often at the head of a column, as if a current of air ascended with the heat from the flame.

11*th August*. We reached Shupanga about 11 A.M. and, in going in, the pilot led me to touch the ground, but so gently Dr Kirk and Mr Baines, who were in the cabin, did not know we were on. The bow alone touched and the men jumped out and shoved her off at once.

Colonel Nunes assisted me with his people and we soon had all the iron house and goods in the house. The Portuguese we saw in communication with the rebels, but they did not inform me with what result. The Governor said that the Villa da Flor had brought out guns to fortify any of the navigable mouths of the Luabo and, on my report, the Kongone is preferred to the Katrina.

Leaving Shupanga about an hour before sunset we dropped down four or five miles.

Foggy on 12th, but we set sail and passed the house at Maruru while still enveloped in mist. We reached Expedition Island about noon and at once began to load. The Kroomen working admirably, we had the chief part of the luggage in by sunset. Left a letter in a bottle on 13th, this day, telling where we had gone and

promising to be at the mouth of Kongone by Christmas. Place is ten feet Magnetic North from point of observation for Lat. and Long. Magnetic station is 300 yds to M.N. of other station.

Thankful to leave the island, having lost none of our number.

Thursday, Aug. 12th, 1858, *Expedition Island*.[1]

This morning gave C. Bedingfeld a letter intended to remove the idea from his mind that he is simply suspended from duty and informing him, if he does not choose to enter into the arrangements made, my responsibility is at an end.

All on board, and so many [k]nicknacks have made a very heavy load. Sailed at 1 P.M. and made only 8 miles: both whale boats loaded. Got a breeze for half an hour this evening. Day very sultry,

Saw a fish hawk with a fine fish in his talons. If a large heron, which stood looking on, came near, it flew up and dragged it off a little. Saw a hawk carrying off the young of a scizzor-bill in his talons. Old birds pursued it with great vigour, but he only flew the faster.

14th. Steam up and sailed at 6¼ A.M. The thickest fog we have experienced lasted 3½ hours. Went on notwithstanding, but before long touched the ground gently; as she had so much weight behind her she would not obey the helm in time to escape it, after seeing we were going ashore. Kroomen jumped out and shoved her off. Lost about ten minutes and went on. We went on 3 hours in this dense fog. About mid-day a good breeze sprang up and enabled us to get on to within 5 miles of Azevedo's house. At sunset ran aground near a spot where she has been on the ground six times. On this occasion we touched where I suspected no bank. Kroomen shoved her off in a few minutes, and we again made sail and went on.

Mr Rae got a very bad cold by going out at 2 in the morning to look after the fire: is a little incoherent to-night: hot but moist skin, eyes suffused; says his bones are sore and his head feels curious; heavy breathing, etc. When I was searching for a dose of Dover's powder he said, 'O, I am no very particular. I'll take every one'!

15th. Mr Rae much better. This morning we remained at our anchorage: had Prayers at 10 A.M. and started at 12. I feel fully convinced that it is my duty to press on up the river as quickly as possible to save the health of my companions. Major Secard urges it strongly and the cases of Mr Baines and Rae, though not actually fever, warn me of the unhealthy climate we are in. Mr Livingstone attended to the engine to-day and part of yesterday. We passed many canoes to-day. One came after us a good way to sell fish. It

[1] The tables of observations are omitted.

was the first time in which the Launch took the shine, as we say, out of the canoes, and she did it by having all sails set, not by her steaming powers. Slept in sight of Shupanga.

16*th August*, 1858. Came into Shupanga at 9 o'clock and found Baines and Kirk well. Before going ashore Bedingfeld handed in a protest against my harsh treatment, etc. I went ashore and came off after making arrangements for his comfort and then landed him. He protests against my using his first resignation. This after he had told me he was sorry it had been withdrawn, and telling both Dr Kirk and myself that he had given in a second resignation and also written in his ' Log ' that he had resigned twice. I never met an individual who seemed to trust more in the power of lying than Commander Bedingfeld.

Left Dr Kirk and Mr Thornton at Shupanga as they are both well and can do good service by examining the adjacent rich country while we go up to Tete. Lightened the Pinnace somewhat, then went over to the Island, on which the Portuguese are encamped, for wood cut by Major Secard. Carried by current past island and aground before I could get her round, the wind driving us in that direction. A crowd of canoe men came and pushed her off. I gave them a few bits of cloth and they burst into a wild dance of joy.

17*th*. Went off for Tete this morning, with Mr Rae better as soon as quinine began to buzz in his ears. The fever, if it was one, had much the appearance of a common cold. Baines and Mr C. Livingstone on board. The latter did duty for Mr Rae as Engineer.

At Bororo point bought some fowls and rice from the Rebels and again, a little higher up, a quantity of fire wood. On leaving Bororo our two rebel pilots ran along the shore calling to us. I went in to them and when they came on board they asked me to buy them. I suspect that the Portuguese are trying to make delivery of their slaves a condition of peace. I explained that we English could not purchase bodies of men. They went ashore sorry that I had not become a slave owner. Our present pilots told me that they were each valued at two pieces of cloth, each 16 yards long, or about 16 shillings' worth of calico. And when Portuguese money appeared on the coast all were excessively eager to sell the Kaporros, as the slaves are called. Mr Azevedo told me that he gave 450 dollars to his own Government annually for his estate at Shupanga; and to the Landeens, who called the land theirs by conquest, he gave 650 Dollars in cloth in order to have free access to the extensive woods near to it. He states that when a slave runs away to the Landeens they will not deliver him up without five or six dollars, or the price of a slave, in exchange.

The Governor is now in treaty with a party of Landeens to act as soldiers against the rebels, but they had not come to terms as to payment when we left. They may have cause to rue this step.

18*th August*, 1858. A dense fog detained us till near 8 A.M., when we went on, and water shoaling compelled us to anchor for a while longer. When near Shamoeira we were making preparations for wooding and I told the men not to take a boat from the side till I had stopped the steamer, but those employed not understanding me, took it at once and it was caught by the paddle and overturned. It sank in shoal water and, all the light articles swimming down, I called to the men to get them first; then we should all lift the boat. All obeyed except Tom Toby and another. They tried to lift the boat and only made her float away down, after discharging all the weight in her. Toby tried to come up to the pinnace for a line to attach to the boat, but that so exhausted him that he cried out for help and Tom Jumbo nobly cast off his clothes and, leaping in, went and saved him. We were all much pleased with this heroic deed. We got all except a few heavy iron articles and a box of plants. Tom Coffee, who is chum to Toby, kept away forward and, even when called to, did not come; but when Toby was all right, then he leaped into the water and cried over him. We allowed the pinnace to drop down to the boat, then the steamer, and were thankful to God that matters were no worse.

After wooding at Shamoeira we were misled by our pilot and went aground where it was impossible to pass. She was pushed off soon, but it was a day of misfortunes.

19*th August*, 1858. Slept last night near a village of Mariano's people, who were alarmed by our vicinity and fired a shot to apprise their fellow-countrymen. When they enquired who we were I replied English, and they asked if I was the Dr who came down with Miranda. They replied, ' It is good. It is good. It is good ', and we remained in peace. Passing the village of Nuana Mambo I gave a present and went on.

On coming to a very difficult part, the pilot lost his presence of mind and misled me twice. I grounded twice, but swung round and off. On coming to a third she got on by her middle and stuck very firmly. About ten men came and helped me off, and I paid them with cloth. We endeavoured to get away, but the steamer has so little power that she was dragged by the pinnace back and never answered the helm. This was three times in one day she played me false: for want of power to turn she is excessively useless.

Mornings and evenings cold, days very hot and sultry. Windy about every other day: grass-burning now going on extensively.

20*th August*, 1858. At Nyaruka, which we reached this evening at sunset. Water very low and our pilot not very certain of his whereabouts. Could not get to our usual wooding place on the shore of Nyangoma on account of fall of water. Sounded for a passage but found none over three feet till we went back half a mile and went into the middle of the river. Touched ground three or four times gently; backing the engine took her off. Voyage to Nyaruka shorter by a morning only than our last.

Hot and sultry day, with a good deal of smoke in atmosphere. Hills quite dimmed by it. A very strong breeze sprang up after nightfall.

People swam after us with tomatoes for sale; bought wood for fuel. Mr Baines drawing a plan of river. Mr C. L. at the engine but Mr Rae is better.

21*st August*, 1858. Went with C. L. up to Senna, leaving Mr Rae and Baines on board. The Kroomen did a very good day's work in cutting wood. When at Senna made the foregoing observations[1] for Longitude. Got another pilot from Major Secard and walked back to Nyaruka in the evening.

22*nd*. Remained at anchor. The half-cast[e] Portuguese made up a bill against me of 102½ fathoms of cloth for carrying up certain some cargo[2] to Senna. Tried to get him to come to terms, but he would not agree.

Anxious to make the voyage as short as possible and get back to relieve our companions at Shupanga, I sailed about one o'clock and made about 8 miles. No grounding except on one occasion when we turned back.

23*rd*. Made about seven miles only in a straight line on account of our pilots wishing to go over to the Senna side of the river. We tried several points but failed, and slept near to a very rapid current. The lead stuck in the rocky bottom and she made so little way that she seemed to be held by the line until it was cut.

24*th August*, 1858. Trying to come through the only passage we could find but still not the main stream, we got aground several times; but backing was sufficient every time except once, when she was allowed to swing on to a shoal before the men could let go the anchor, or make sail to turn her head round. Got an anchor out and with the winch heaved her head up stream and into deep water. Passed the night afloat in a very difficult part.

25*th*. This morning we went over three feet of water. I went in the boat to examine ahead but, finding no passage, I went to

[1] The reference is to three pages of observances not reproduced here.
[2] So in the original.

main land of Manganja to see if another branch came out from behind the island where we were aground but, finding none, came back and lightened the pinnace to nearly the same depth as Launch and laid out an anchor to get both afloat. When this was done we got in with some difficulty to main stream, which is called Nyanja by the pilots, or the sea. There is a large body of water flows always. Came to Pita and cut down a lignum vitae tree for fuel.

Great quantities of grain brought off for sail;[1] fowls remarkably cheap. Cotton growing everywhere. Immense numbers of people appear, looking at us and all eager to sell whatever they have. The Manganja mountains look very fine from this.

26*th*. Spent the whole of yesterday getting through a narrow shallow passage where, the pinnace sticking, we slewed round into a very bad position. Mr Baines volunteered to remain with the Pinnace while I made an exploratory voyage to Tete. I was very unwilling to do this, but she is so deep as to cause very great delays. We anchored at the lower end of Nyamatobsi island and I found this morning that the engine pump would not work, so we were obliged to remain this day, waiting while Mr Rae took the pump to pieces, trying to discover the reason. It ought to have been a ball valve instead of an Indian rubber one. Mr Laird has served us very ill, and now we feel the effects of his greediness in saving a hundred pounds or so by giving us an old cylinder and bad boiler. The tubes are too few and placed on the bottom and one side instead of all round.

Kisio = name of a thorny tree whose leaves are used for dyeing blue very similar to indigo. We found quantities of the beans, which are thin, long and corrugated. They pound them into meal and throw them into cold water where, the cloth being laid, in one week it is blue. It is mixed with black earth as a mordant.

27*th August*, 1858. Left the Pinnace in charge of Mr Baines this morning and, having a strong wind, came on at a fine rate, but, getting into an impassable branch, we were obliged to go back a good many miles, and Tom Coffee, drawing up the whale boat, prevented the helmsman answering my call and we went aground side on to the tide and a shallower bank. It required all our power to get her off against the current. Got up into the other branch and slept at Crab's island.

28*th*. Made good progress to-day, passing Nkuesa hill, or rather Kavra misa hill, opposite Nkuesa. It is a remarkable double-coned hill. We came close into the opposite shore, the Launch

[1] So in the original, apparently for 'sale'.

rubbing the bottom at several places where the pilots were in doubt. Anchorage at a confluence of two streams, one from East, the other from West shore.

29*th*. Remained for a morning's rest and prayers, then went on four hours to a wooding place on the Western shore, a part of Shiramba. Men cut a large quantity. I went into the forest near; saw many footprints of elephants, some recent, and many tamarind trees, a few coffee trees, and evidence of country having been formerly inhabited by Portuguese. Very many parts exhibit the same evidence in Mango trees, cotton and indigo, which seem to withstand the fires of this country better than most plants. Evidence of last year having been one of drought in the drooping condition of the leaves of the trees.

Anchor in the evening out in the stream.

30*th*. Went on towards the Northern bank and slept at the main land after cutting down some wood on the main land. Took a walk in the wood with which it is covered and found the trees crowded with gigantic climbers. Elephants seem to abound in it and one gets the idea of the perfect wildness of the whole scene from the numbers of decayed trees fallen down. The fires which are now seen in every direction for the removal of the superfluous grass do not reach these luxuriant tropical forests. The grass cannot grow in the gloomy recesses where the sun cannot penetrate, and a means of lighting the decayed trunks is a-wanting. Took in a quantity of wood.

30*th*. Went on on same side of the river and passed the island of Nyakasenna but, after penetrating many miles beyond, we found that we could not proceed farther and came back. Wooded at Nyakasenna, which seems formerly to have been inhabited, for the remains of burned huts testify with their masses of charred grain to its depopulation by the wars of Nyande.[1] Elephants had been feeding on the island.

Found a fruit containing much milky juice; leaves, like mango, used to cause pungency in snuff.

31*st August*, 1858. Went on more towards the middle of the river which here is at least three miles wide, but found we could not pass: got frequently aground. I went in the boat to a part still farther south, where a body of water seemed to flow, and found it led into the main body of the river, but, in going to it in the ship, the men took us a wrong way and got the ship again aground. They then refused to try that point by that passage and, [they]

[1] Bonga, the half-caste rebel: see below under 15th–16th October and 2nd November, 1858.

wishing to go round by a backward movement of several miles, I consented and went to wood on the island of Nyakasenna. Found the native cotton called Tonje Cadja growing on it. It clings to the seed and, from its hard crisp feel in the hands, seems more like wool than cotton. The fibre is strong, curly and short. Tonje manga is the introduced variety and, as that same word is applied to maize, we learn in this etymology that maize is not an indigenous but an imported grain. Mapira is the name of the large millet or sorghum and Mapira manga of Maize (Foreign mapira).

After wooding on Nyakasenna we went back some miles and anchored at the confluence of two streams.

1st September, 1858. Went up one stream untill we could go no farther from grounding. Returned and then entered the southernmost branch. It promised fairly. The pilots seem to have no idea of the river as a whole but, passing in their canoes, go from one branch to another and are content if they get along, without reference to whether the route they have taken is the best or not. Wooded at a grove of palmyras. A number of Bonga, or Nyande's people, came to us while so engaged, but the country generally is depopulated by war.

C.L. has a severe attack of biliousness but I am thankful to see him now much better. The quinine taken daily enables us to produce the peculiar symptoms of cinchonization by a few doses extra in a very short time, but we do not see anything like an intermittent fever produced. Mr Rae's skin peeled off after an attack which, though a severe cold, had some peculiarities of fever.

In the afternoon went up higher but found no passage. Examined with the boat lower down for a passage into the main body of water seen two days ago, and will try to go up by a difficult channel.

We shall succeed, but I feel much concerned about our companions down the river. The Lord look in mercy on us all. It is his work we are engaged in. The high position I have been raised to is not of my seeking, nor was the éclat which greeted me at home a matter of my choice. I therefore commit all to the care and help of him who has said Commit thy ways unto the Lord: trust also in him and he shall bring it to pass. . . .

4th September, 1858. We went back from the point we had reached in the most southerly channel to a side stream and tried that, but in vain. The pilot tried another but, when we attempted to go in also, we found it impassable. We then went back and round to the channel I had sounded with Williams two days before and for which we had then set out but the pilots could not find it. Now we were more successful and got through it into the main body of

water, which is a goodly sight to see. Here at Shigogo the river is at least 3½ miles broad and divided into six or seven channels by large islands. Each channel is as large as two or three Clydes, but a sort of dam is formed here and at a particular point in each channel the water spreads out and is not more than 2½ feet deep. This is the great difficulty of Shigogo: we go out of two fathoms into two feet. This could all be rectified by staking one of the channels so as to guide a body of water into it at flood, as is sometimes done accidentally by snags or sunken trees.

I lost a day in my account of our attempts to get through Shigogo, the time being so fully occupied by day that I could not write at night. The sun is daily becoming hotter. Yesterday (3d), after getting through, we made good progress. We took in some wood at Shupanga last night and now take some more before starting this morning.

The canoes of Sr Tito Secard which we passed on the 27th passed us again, and we came up to them before anchoring, but they are now ahead. We with our steamer cannot take the 'shine out of' the canoes. It would require six men constantly cutting wood to keep her going.

Heard yesterday that Bonga had killed six of my men who had gone to beg from him. He said these people come here and I don't know whence they come. They are perhaps Landeens. My men replied, 'No, we are people of Sekeletu, and have been left by an Englishman at Tete'. He ordered them to be put to death, so it is reported. We hope to reach Lupata to-day and as the natives and Portuguese always make some ceremonies before entering the defile, we shall have prayers to our rock and refuge ere we attempt the passage. It is said to be very rapid where compressed into so small a space.

4th September, 1858. After taking another tree from Shupanga to-day we came on to the island of Nyanzōa, which seems to be well peopled. All turned out to see us pass. We generally manage to get aground on such occasions, probably because the pilots wish to shew themselves off and in doing so get us on. We passed close to the village, and, finding that we could not pass the stream above, I thought we had taken the wrong channel. Came back and saw people drying flesh of an elephant on an island. Tried a channel near main land on North, but failed there also. Then came back to the Nyanzōa channel and, after very careful sounding, got her over two and a half feet. If she had more power she would press herself through an inch or two of soft sand. We then managed to reach the island of Kasoeia where, trying to get out on to an open space,

Palm Grove above Mazaro, Zambezi River, 1859

after dark, we grounded again and, getting her afloat, anchored for the night.

Four pieces of tobacco were bought by the pilot for one yard of calico. Each piece was of the size of an eighteen-pounder.

The tree called Moringeira by the Portuguese has an eatable but bitter bean, and the pounded bark acts as a blister when applied to the skin. The native name is Zangōa.

The tree called Mucunducundu in Africa is called in the Brazils Pan Pereira and a sulphate is extracted from it which in double or 8 gr doses equals 3 of quinine. It is termed Pereirina. The leaves are made into a bath for fever cases. The Kumbanzo is also much used.

6 *September*, 1858. Having got a good supply of wood from the bottom of the Eastern flank of the Lupata range, we went on this morning, favoured with a fine strong breeze which carried us in six hours through the defile of Lupata, but not just in time to take a latitude at the Island of Mosambique, which is situated at the western entrance. The current is strong but not more so than it is at various other spots in the river.

We found a piece of African oak or teak last night. It is named Mosanya and we cut down an ebony or black wood tree of about a foot in diameter. The ebony is put into water and the young white part soon rots off. This was standing in the forest and the white was rotting. The wood was of a light brown colour.

Near the upper end of the defile of Lupata there are some perpendicular rocks by which comes a strong current. It is called Kangomba.

Farther down there appears the first igneous rock, spread over a sandstone. This is named ' Cgifura ' and the same name has, by some home geographers, been manufactured into the Ophir of Solomon. A large hill North of it is Kabranhenga.

The hill on our right on going westward out of Lupata is named Karamanomano; that on our left, which is about the height of Arthur's Seat is called Nyamolongo.

It is said that Bonga is in a great fright at the English coming to fight him. The idea of a peaceful visit does not enter such heads.

7 *September*, 1858. We had a fine breeze again to-day and came up to Bonga's stockade at the confluence of the Luenya. He sent a man to ask if I would not sell him some powder. I declined but promised him a visit on my return from Tete. His nephew is now up at Tete on a visit.

The rock opposite the upper edge or left bank of the Luenya is called Mashirika, and many canoes and men have perished there.

The large mountain a little West of the confluence is called Mehinga. It lies about N.W. from Lupata. The Nyankome rocks are opposite the lower or right bank of Luenya and as we passed the water of that river was of a beautiful green colour compared of the Zambesi, which is always of a light sandy hue in consequence of the great abundance of that material it always carries. The bottom is in a state of perpetual change and the particles of mica are seen rolling over and over and, if one stands in the stream anywhere, he feels the particles striking against his legs.

Passing Bonga's we came on some miles and finished the day's work wooding.

Nyankangana, a rock on the North side above Lupata several miles, with Shuõze, a rock, in front of it.

8th September, 1858. At Tete. This day we reached Tete and its inhabitants saw for the first time in their lives a steamer. A crowd came down to the beach as we anchored about a hundred yards above the fort. Taking the boat I went ashore and was at once surrounded by my faithful Makololo. They grasped my hands all at once and some began to clasp me round the body, but one called out, 'Don't do that! You will soil his clothes'. It is not often I have shed a tear, but they came in spite of me, and I said, 'I am glad to meet you, but there is no Sekweleu'.[1] They then began to tell how many they had lost, but the Portuguese invited me to go to the house of the commandant, and we deferred our talk for an hour. They came on board and again expressed their joy at seeing me. 'Now our hearts will sleep. We have seen you'.

Thirty of them have died of small pox. One died who had been in the employ of a trader. Six of them went on a visit to Kisaka and he treated them well. Thinking that they might fare equally well with Bonga, they visited him and he said, 'They have come from my enemy Kisaka, and have his medicine with them to bewitch me. Let them be killed'. And put to death they were.

Poor fellows, how sad I feel when I think on those who have departed from this scene, and I pray, 'Free me, O Lord, from blood-guiltiness'. The principal men are here. 'Grant Lord, that I may be more faithful to them who remain'.

They have lots of pigs and say if they were only oxen we should be content.

9th September, 1858. Taking the Launch to the beach we took out her cargo, which seemed not much under four tons and, Major Secard having most kindly placed his house at my service, we placed

[1] Perhaps Sekwebu.

our goods in it. I occupy the same room which I did when I was here in 1856. My men worked hard at getting out the cargo and carrying it up to the house. I afterwards talked with them and distributed two pieces of cloth to each. They say the people of Tette often taunted them with the assertion that I should never return and wished them to give up all thought of seeing me again; but still they believed I would return, and now their hearts rejoice to see that I have not disappointed them. They say that although the small pox killed many, yet that was the will of God, but the murder of these men by Nyande's son Bonga afflicts them much. They were lost—the others were gone by the will of God. He cut them with axes and into two of their heads he knocked pieces of iron.

Kisaka is dead but Jão de Concessão had much influence there and arranged to get his successor named in the person of a friend of the Portuguese. Everything else is in a ruinous state. The villas opposite to Tette rent very low—about 20 dollars annually—as there is no security for property.

The appearance of Tette just now is wretchedly dry, as the rains begin only next month. All the respectable men sent off people to get coals for me, and say if I would only wait a little longer they would have twenty tons ready. It is pronounced by Mr Rae to be excellent coal, and he had noticed that when a pit is newly sunk it is often like the first few specimens, soft and wanting in force, but very soon it comes to be of the first quality. All ask eagerly about the quinine which I took home for experiment, as they believe firmly that such it was.

There were five or six convents in Tette of old, one of Dominicans one of St Paul, etc., and a stone lavatory is now to be seen at Sr Secard's house which he dug out from the ruins.

(On maturely considering the affair of the ' Ban ' I see reason to believe that Bedingfeld, on finding that he could not get a sailing master to carry the vessel out, got up the report of that vessel's unworthiness simply that his incompetence from seasickness and otherwise might not be known. She would have suited us admirably and it is an impossibility that vessels built by Mr Scott Russell for the very purpose of running through others[1] should be so weak as represented by Bedingfeld).

The next ten pages of this diary are given over to the setting down of observed altitudes dated September 9th to the 16th. Among them are the following brief notes, mainly topographical:

September 14th, 1858. On a sand bank about 150 yds from the

[1] So in the original.

Western end of Island of Mosambique where I observed on my first visit the island bears about due East.

Eastern end of Island of Nyaguma below Upper Shupanga.

Wooding place beside a Baobab tree, hollow, 9 ft in diameter inside and 72 ft in circumference.

The regular diary continues:

15th September, 1858. We came through Lupata in a most pleasant morning and stopped at the Eastern end at a perpendicular rock called Bandari to wood. Cut a large tree which burns without leaving any ashes—so the Barotse say, two of whom I have entered on board the Launch. We then passed down to the Island Nyaguma, where we bought rice and an animal like the Hyrax Capensis,[1] but it lives in the water and when attacked uses its teeth fiercely. It had hair approaching in appearance to the spines of the hedgehog.

At Bandari I measured the height of water rise on a perpendicular rock and found it exactly ten feet.

16th. We wooded at Shiramba, about four miles above the spot pointed out as the great house. All is deserted now and we saw no living thing except a small brown antelope. While the men were cutting down a Lignum vitae tree I walked a little way to the South West and found a baobab which Mr Rae and I, measuring at about three feet from the ground, found to be seventy two feet in circumference. It was hollow and had a good wide high door way to it. The space inside was nine feet in diameter and about twenty five feet high. A lot of bats clustered about the top of the roof and I noticed for the first time that this tree has a bark inside as well as out.

17th September, 1858. Came down this morning to near Nyamotoksi island and found Mr Baines in good health: he had enjoyed himself much and made some nice sketches. He had managed to come up a few miles with the wind and had arranged the Pinnace rather tastefully. I left him where I found him, as it was important to make all haste down and then return to him again.

Davis the Krooman was found to have taken 8 bottles of wine and one of brandy, besides 16 yards of calico. He was dismissed from the cabin and Tom Will put in his place.

18th. We came down a very much better channel than we went up. Indeed had we gone by it we should scarcely have left the Pinnace. When we came opposite Senna we wooded and anchored out in the stream. Mr Rae and I then went to the village and were just in time to see the public entrance of the Governor of Quilimane. He has destroyed the stockade of Mariano and made an end of the

[1] Coney or 'dassie'.

war. All the rebels have fled. The whole population of Senna turned out and welcomed him with drums, mock fights and a great waste of gunpowder. The Landeens made a good display. Many of them had two front teeth knocked out. There were arches of evergreen erected all along the path he went, and an address was read to him at the gate. The canopy of the church was brought to carry over him, but this he declined. The village was illuminated in the evening. After tea I returned on board.

A letter from Dr Kirk stated that Bedingfeld had gone with Colonel Nunez to Quilimane and both Thornton and he were working well. Col. Nunez had left him servants.

The Portuguese say a steamer has come into Luabo and Dr Kirk has gone down to it with four canoes.

I noticed in our voyage down a singular fact—three alligators at different times set off after us at full speed and one followed us a mile. It continued to follow though shot at. My men say they think the steamer is some large land animal swimming past, and they come to drown and eat it.

19. Major Secard came up and volunteered to take up our sugar mill, steam engine, and other things to Tete. He also took Mr Baines on with him, giving him men to punt the pinnace along.

20*th*. Left with the Governor on board for Shupanga. A very strong head wind, which raised such clouds of dust as quite to obscure the landscape. We got down to Shamoara only and, going ashore, found all deserted and burned. Extensive grass burnings had been observed a few days before in this direction and at one time it literally rained flakes of black carbonized grass, so as to cover the water. These pieces of burned grass are taken up with the stream of hot air and come down at great distances. At the top of the stream a white cloud often forms and stands there.

On going ashore to cut wood, we found good sized blocks of ebony, but the Kroomen tell us that in their land it grows larger.

20*th*. We reached Shupanga. Many articles of native furniture floated down the stream. The Governor told me that he had sent a party of 200 men after the rebels to Morambala and they captured 135 women and children and killed 40 rebels.

One hundred women were captured about Mazaro in their flight. All the way down, the country was completely deserted where hundreds used to meet us.

Found Dr Kirk had gone down to Kongone with four canoes. On 22nd Mr Medlicott, the mate of the Lynx, came up to request me to come down and receive some articles ordered from Mr Skead, and I went, Mr M. steering and allowing of my writing despatches.

24*th Sept*, 1858. Forced to stop at Expedition island by high head wind which caused waves sufficient to stop the paddles.

25*th* reached Kongone harbour but bar impassable on account of the swell raised by high winds.

27. Mr Hart came ashore.

28. Captain Berkeley came ashore and sounded the whole bar very carefully: he found 2½ fathoms on all the channel.

29*th*. he did not get up steam in time and remained. Went round the point to Eastward, as our meat was done, I having brought as little as possible from Senna. Discovered a river called Nyangalue which in two branches comes out of the Luabo. Dr Kirk shot a she-hippopotamus which at once rolled over dead. We took it ashore and left him and Mr Medlicott with it for the night.

30*th*. This morning the Lynx came in very slowly and stuck on the outer edge of the bar, though the channel was pointed out. She strikes heavily but stands upright. Remained all day in that position. It is unaccountable except on the supposition of an unusually low tide. This is very unfortunate, but everything happens according to the pleasure of Him who doeth all things according to the good pleasure of his will.

1*st Octr*. At early dawn this morning we saw the Lynx broadside on to us, shewing she had moved, and Mr Cook came in the Dingey and told us she was afloat and anchored, having come out of her bed at high water about 8 o'clock last night. She then came in and we found that she had thrown overboard all her shot and move[d] the guns forward to place her on an even keel. As she steamed slowly past us Mr Medlicott, standing at the mast head, called out, ' Three cheers for Dr Livingstone and his Expedition! ', and they were given with all heartiness by the crew.

Captain Berkeley sent his carpenter and caulker to repair our deck house which is so leaky that Mr Rae got a fresh cold by the rain pouring down on him. They put up a shelf and painted the tarpauling which covers the house and made several other repairs.

On Sunday we had service aboard the Lynx and I spent the time on other days in writing despatches—and very disagreeable ones they were, for they were against Bedingfeld. One, however, No. 11, was on the impossibility of having slave institutions here as in America. Evidence, Mariano's war and Landeens' refusal to deliver up fugitives.

We endeavoured to tow the Hippopotamus but it was found quite impossible with four good oars, so it was left in charge of Dr Kirk and Mr Medlicott, and next morning they brought a half alongside. The meat very good, like roast beef with a rind of pork. The

hippopotami go out daily to play in the surf. Plenty of sawfish about here. It is said that the Hippopotami flee from them.

Captain Berkeley volunteered to go with us in Bedingfeld's place and so did Mr Mandeville and Medlicott. Mr Mandeville had been told by the Admiral that he might go, and he was very anxious to do so but, remembering the disappointment I experienced in B's appointment and subsequent conduct, I felt unwilling to accept of another naval officer, but, feeling we should be the better of assistance, I proposed to Captain Berkeley to have two volunteers of petty officers. John Walker, who had seen much service in South America, I accepted as quartermaster at double full pay, £73 per annum, and William Ro[w]e as Leading stoker at £83 annually. The former comes between us and the Kroomen, the latter will do engineer's duty in case of Mr Rae's illness. I put Matengo, a Makololo, on the list as stoker too at 1/- a day. Tom Davis, having been guilty of stealing, was discharged into the Lynx and £1 deducted from his pay for eight bottles of wine he stole. Tom Will, having a bad foot and not understanding English, was also sent aboard the Lynx as being incapable of duty.

I would have left on the 7th, as all repairs had been completed, but Captain Berkeley wished me to see him over the bar on that day. So on the 6th we went along the river Nyangalue and found that it has several very tortuous branches which wind so as to make their navigation very intricate. We had previously gone through to the Luabo in the whaler in company with Mr Medlicott and Mandeville. We kept in the Luabo and in coming back wandered so as to get into a creek we had been obliged to turn back in the day before. But about two o'clock on the 7th we reached the Lynx and, as that was full moon and nearly high water, the Lynx steamed out easily. We waited behind the sandy island at the entrance till she hoisted a preconcerted signal to say she had got over in safety, and then went on through the Nyangalue parallel with the Sea to the Luabo and slept in it.

The Lynx lost a boat's crew, all but four, on the bar of the Luabo, six men having been drowned by the cutter being upset. She had no officer on board and the Captain is very much blamed. I proposed to him to put up a beacon on the sandy island, as he had mistaken the Luabo of Parker for Kongone, and he acceded to it, Mr Medlicott putting up a strong spar with a barrel painted white

on it.  It is unfortunate that this serious accident happened,

as people are prejudiced against the river by such things. The Lynx officers think the Luabo far better than the Kongone, and it is very much broader, 3 miles broad. Possibly they are right. They spent a week in getting the channel; we spent three days and failed.

Kanamise R. Bank of Luabo. Nyakuma = R. Bichane = (Catrina) Bar. Timbue left bank or it is Mesage Bar?

8th. Stopped to wood at Melalame, a praso of Sr Azevedo. Got information from Tizora, our pilot, that Mr Cruz had shipped a cargo of slaves at the Maindo, (Sangane—Massengane) on the first of this month, or just when the Lynx was off the Kongone. They were domestic slaves of the sister of Mariano whom she was forced to sell for debt. Cruz is the only slave dealer of notoriety here. Passed Expedition Island, having a good wind and good steam to help us.

9th. Came up to an island where an immense number of women were congregated by order of the Governor. We thought they were slaves on their way for shipment and, as they ran along the shore making obscene gestures and seemed totally unconscious of their fate, we landed to enquire. They all retired and we were taken to a hut where the daughter of a rebel, now a prisoner in Mosambique, was. All the people were said to belong to him (Sr Paulo).

We could not find out positively whether they are to be shipped or not, but there is a probability that they are.

The 9th had a north wind and was oppressively hot. We landed at a creek to pick up some fossils which seem to be of deer and tortoises, ?Dicynodon. They are in great numbers but broken, and there are bits of pottery among them. We could not detect the matrix. The sun was boiling hot.

10th Octr, 1858. After prayers we came on to Maruru. Plenty of Mulberries, quite ripe. Reached Shupanga at dusk.

11th Octr, 1858. Went down to Sr Vienna's, a distance of about a mile and a half. N. wind makes the day oppressively hot. Propose to freight canoes, to carry up our luggage to Tette. Each costs 36 dollars and we have to pay for provisions and the wages of the mariners, besides the helmsman and coxswain each receive a piece of cloth or 16 yds, and each common paddler 12 yds. A long discussion about the cloth, which is too narrow. The American is broader and commands the market. Mr Vienna says the canoes are often let at 40 or 50 dollars for the same journey. He was communicative. Has been engaged in slave trade: says Mr Cruz is the chief slave trader in these parts. When the French Emigration scheme was promulgated, he went to Bourbon and got wines and other goods on credit to purchase slaves to be exported as free

labourers. When he came to Kilimane Jão Bonifacio and his brother got 60 barrels of gunpowder and sent it against the Licungos and a great number of captives was the result, but by the time the French ship was to call for them, the Governments of Portugal and England had disapproved of the scheme and Cruz could not get the captives off his hands. He has lately, however, got out the cargo, which we heard of as having been shipped at Maindo south of Olinda. The present Governor, it is said, is anxious to get evidence against Cruz but cannot find it, as all decline to come forward. We hear that Sr Galdino is suspended from his office of commandant of Kilimane, probably on this account.

13*th Octr.* Took cargo on board the Launch yesterday and to-day, 14th, paid Sr Vienna 38 dollars for each of his canoes (2) and 34 to Sr Francisco for one of Cruz's. I also paid the men beforehand, as is the custom, and loaded the canoes. The canoes require a month often for their transport to this point from the forests where they grow, and 60 or 80 slaves are employed to drag them on rollers. They cost £60, £70 or £100 each and carry about 1 ton.

An Englishman is said to have come to Shuindo 25 days N.N.E. of this and bought ivory rings. He was accompanied by Mogojos or Moors, and is making a map. Is it Burton?[1]

14*th*. Left Shupanga at 4 o'clock and with a brisk wind came round the bend west of that before sunset. Knife given by Lady Franklin[2] stolen by a Portuguese. Feel sorry about it, as I valued it highly for Lady F's sake. All the Portuguese out here are sent from their country for crimes. Observed a comet this evening. The kroomen say they had seen it three nights before and Matengo, my Makololo, had seen it the night before. It is a fine one, the tail a little bent.

15*th*. Reached Shamoara and wooded, an old canoe broken by a stone serving. Everything is smashed that can be broken. The Portuguese send out their slaves in marauding parties to plunder wherever they can. This is vengeance, but it will cut two ways, for the slaves are thus learned an art which will in time be turned against their masters.

After wooding we went up to Shamoa, the Eringa or Stockade of Mariano. It is on a sort of island, as there is a lagoon behind it which communicates with the Shiré and has hippot. in it. It is covered with large trees and had a double row of stakes all round. At some parts these were strengthened with clay walls loopholed. He had three cannon to defend it. A large house for his wife stood

[1] Richard Burton : see Introduction, p. 23.

[2] The widow of Sir John Franklin, the Arctic explorer.

in a retired part, and his own establishment was magnificent, according to his means. Mariano had 18 cows and a great many goats and sheep. The wool from his sheep is still seen strewed over the place. The Portuguese have been at the trouble of erasing all the walls of both stockade and houses. We met a few people who seemed suspicious at first, but became more free after a little. They said that the reason why they had run away from the stockade was they did not like to fight with this Governor. After engaging them to cut wood of the stockade for the steamer, and spending an uncomfortable night among mosquitoes, we left and, proceeding up the Shiré, saw many of Bonga's people on the banks. We reached Bonga himself about 1 P.M. and he came on board and dined with us. He seemed dejected and had lost everything; has a great many people still. On explaining that we wished to visit the hot fountain, he sent a man forward to the chief of the village Mindeza on the flank of Morambala. We came to an anchorage opposite the North end of the Mountain at sunset and Dr Kirk and I landed to take an observation. By α Grus we found the Latitude to be 17° 24′ S. but the Mosquitoes were so excessively annoying we could do no more than observe for Latitude.

16*th*. Went up in company with Mr Thornton and Dr Kirk to the village halfway up [the] mountain. Chief would not shew us a path from it up to the top, so we went alone and found the sides very steep and covered with scraggy trees. After going up about 1500 feet we came down and visited the hot fountain which is on a plain below and bears about West from the N. end of the range. It is a little fountain boiling out in a flat valley and having a fig tree hanging over a little below the principal eye. There is a strong smell of sulphuretted hydrogen evolved in the gas which bubbles up constantly with the water. When the finger is put in it it is withdrawn instantly, as it is near the boiling point. Unfortunately the thermometer we had with us was marked only up to 160°, and the mercury rose instantly up to 155°. We took a potful of the water and made chocolate with it. Except the smell, it was agreeable and produced no effect though, being thirsty, we all partook largely of it. The grass and other herbage grew well in the stream, though it was too hot to hold the hand in. The stones around were also hot. We could not find a fowl to try the boiling power of it. The rocks are chiefly granite and porphyry, the latter being highest.

On returning to the ship we thought it best to get up steam and get away down-stream so as to avoid mosquitoes. Neither men nor we can sleep at night. The top has another population under a

chief named Moerunga. There is a path up to him from the Northern point. It would have been interesting to examine the vegetation at a height of 3,000 ft, for that we believe to be the height, and there are oranges, limes, cocoanuts, sugar cane and other fruits there; but this would have required two days—or rather nights—more of mosquitoes, and we are late enough for Kebrabasa already. We saw women with the knob of tin in the upper lip, and probably they are the same on the top of the mountain.

The chief of Mindesa came down and begged some grog to pour out before his charm or idol, of which we saw the little house. Declined to give him any. I gave him a handsome present of cloth.

On dropping down to Bonga we found that he had acceded to my suggestion that, instead of accompanying us to Senna, he should send a messenger and not trust in the officials until he had got the promise of safety from the Governor of Kilimane. He had sent his uncle to Senna to open up a negotiation for peace. He says the war is finished now and he wants to cultivate. Leaving him at sunset we came down against a strong wind, but the river Shiré, unlike the Zambesi, has no sandbanks. It is a muddy river and the water carries a quantity suspended in it. It is about 60 or 80 yds broad and from 8 ft to 2½ fathoms. The banks are generally perpendicular, cut out of fine fertile clayey soil. The lands adjacent are very fertile and are probably flooded annually. The Shiré winds from the Eastern range, taking every now and then a sweep into the plains and returning again to the hills which, but for the trees, are said by Dr Kirk [to be] very much like those of Lebanon[1] on a small scale.

We came down without difficulty to Shamoa. Loaded up wood which we had ordered, and paid the cutters. Then came down to a joining link with the Zambesi about 10 P.M., where we spent Sunday.

17th Octr, 1858. One piece of the wood was Mucunducundu, a bright yellow wood of intense bitterness. It is used in fever and is said to form a dye.

17th October, 1858. Christians must become more missionary [?minded] individually before much can be effected for the christianization of the world. And so must our nation. It is the mission of England to colonize and to plant her Christianity with her sons on the broad earth which the Lord has given to the children of men.

[1] In 1855–1856 Kirk had come to know something of the Levant during his period of medical service as a member of the volunteer medical service recruited for the Crimean War.

I am now working out the problem of a way into the Interior healthy highlands. And this much we have ascertained. It is quite safe to enter these rivers in May, June, July and August, provided due precautions are taken—Quinine daily for the sake of the effect on the imagination and as its prolonged use brings the system into a state in which cinchonism can be produced in a few hours by an extra dose, It is decidedly curative but questionably prophylactic, if we deduct the effect on the imagination. A much more important precaution than quinine is constant employment and sufficient bodily exercise to produce perspiration every day. When anyone halts in Mangrove swamps or leads a listless inactive life he is in danger.

The Zambesi is preeminently a *sandy* river. Enormous masses are constantly swept down by its waters. The western rivers are preeminently muddy ones, and so is the Shiré and lower parts of the Zambesi delta. The Luane was muddy too. When we take up a basin of the Shiré water to wash, and allow it to stand a few seconds, the particles are seen descending to the bottom. It has a dark brown colour. The Zambesi is light and greenish beside it. The latter is comparatively pure, though when we look to the bottom anywhere we see a rush of particles of mica and sand along with the current, and when one stands in it the particles are felt constantly striking against the legs. Sand banks have been observed to be removed by it in a few weeks which would, with a hundred carts constantly at work, have required as many months for their removal. There would be no difficulty in its navigation the whole year by a vessel drawing three feet and of sufficient engine power. This we can attest from having seen the river at its lowest. We have now considerable heat and, as the Portuguese remark it, we feel that at its highest pitch—94°–96°—[it] is no great inconvenience where nights are cool. A much higher river is expected next year, the heat being said to be an index of greater rains.

We go now to Gorongozo, but our visit must be short there too, for we ought to be at Kebrabasa during low water. If we can blast away the rocks which obstruct the passage, how thankful I shall feel. It will be like opening wide the gates which have barred the Interior for ages. Will the good spirit of the Lord grant this honour unto us, his servants of this Expedition? Some condemnatory remarks have been made about my turning consul. If it is to promote the good of my fellow men, I will turn quarryman next, as I turned 'Skipper' last.

The idea had been deeply impressed on my mind for some time

past that emigration—colonization of Christian families—ought to form a feature of this age. Hundreds of thousands of pounds are collected annually for missions properly so called; but these, which are chiefly combinations for the poor, ought not to exclude the rich from colonizing, spreading their poor relations over other countries. A great deal of the good done in Foreign missions is effected by the lives of the missionaries and those of converts. This good might be done by christian families sent out as missionaries by their richer friends. They would be a double blessing, a blessing to our over-crowded population at home and a blessing abroad; and the rich relatives, by personally assisting their own flesh and blood, would at the same time save the expense of the secretariat and other expensive machinery of Societies. The poor Arabs of our cities, often the offspring of rich men who know them not, might be led to the green fields with which our own Great gracious Maker has so bountifully furnished our fair world by the repentant deeds of their parents. How many millions might flourish in this Africa, where but hundreds dwell, and then the effects which their cultivation of cotton and sugar-cane would have on the slavery and the slave trade! O May the Good Lord who loveth all grant that the idea may be embodied in action. It is not the worthlessness [?of] the instrument that can prevent him doing what I believe he himself has put into my mind and heart to long for.

I looked on Morambala with great interest, not simply from its height and beauty, but in relation to its being, even down here, a sanatorium. The Shiré is easily navigable to its very base. There stand the hot baths which would in many cases prove curative. And above at 3,000 feet, we have oranges, etc., etc., and a climate better than any in Europe. There are inconveniences. The Shiré itself has a prodigious number of small mosquitoes. They would at least prevent unnecessary delays on its banks: all would hurry on to the high Morambala and, as it has clear trickling rills on its summit, almost anything could be done with it.

18*th*. Opposite Nyaruka. We have made good progress to-day, though our wood was bad, and but for my trying another path, we should now have been at Senna.

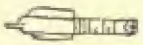
Morambala is covered with scraggy trees up to its top. There are not many long straight ones, but we observed a tall sterculia, with a number of pots around. Into these at certain times food or beer is put for the gods. The headman Masache wished me to give him some spirits to pour out as an offering to his gods, but I declined. He had a small hut in his village for them.

Matengo, the Barotse man employed as a stoker from 8th of this month, works very hard and he hurt himself from over-exertion in splitting wood.

Before leaving Shupanga I paid Sr Vienna 38 dollars for one canoe and £7-6 for another, increased by exchange to £7-14. I also paid Sr Francisco 34 dollars for one canoe and gave to each of the pilots and steersmen of the three canoes a piece, or 16 yards, of calico. 6 marinheiros in two, and 8 in another, each received 12 yds of calico and a small piece in addition. I have to pay for provisions besides, 12 panjas of Millet to Senna and for 12 down to Luabo. I paid our pilots ½ a piece each for Luabo, and Dr Kirk paid the canoe men for that work besides. Thornton and Dr Kirk lived on the bale of calico besides while at Shupanga, so it is pretty well spent. Gave to carpenter and caulker of Lynx 15/-. To Matengo ½ a piece of calico at Shupanga.

21*st October at Senna.* We anchored on the other side of the river and had about two miles to travel before we reached the village. Consulted Sr Ferrão on the journey to Gorongozo. He said it would require from six to eight days to get there and, the rainy season being about to commence, we might be detained longer than we anticipated by the rivers on our way back, that we could not calculate on being away less than a month. He has the chief power in the district and could have arranged matters for us. The population is sparse. The Landeens have retired. The Bazuzulas are to the North West of Gorongozo and are described as hard working. They carry heavy burdens and lade their bodies besides with provisions tied round them. As we should be prevented by the Gorongozo journey from examining the rocks at Kebrabasa when the river is low, we decided to forgo it now and may accomplish it at some future occasion, probably in our return for other luggage at Senna.

Dr Kirk and I took a walk up to the top of Baramuana hill, where we have a fine view of the country and river and villa. The latter is wonderfully altered since I was here. The stockade was begun the day after I left and, as it gives security, the population attracted to it is now about 4,000. Formerly it contained only a few miserable huts and dilapidated ruins of Portuguese houses. The stockade is about a mile long and a quarter broad. The fort is now repaired. When I was here a person could have walked over the grass-covered mud wall which here and there were patched with paling. A good deal of cultivation is carried on just now and many trees are cut down for more.

On coming down the Boramuana from Morambala we entered a large hut in the middle of a village of Landeens belonging to Mr Ferrão. It was large enough to contain the whole village. We saw a turning lathe belonging to one of them who was engaged in turning ebony snuff boxes from the roots of that tree. This is the best part to select. The lathe consisted of a wooden chuck about 18 inches long by four in diameter  , having a spindle in one end and a hole for inserting the wood to be turned in the other.  A portable rest  with its handle is placed on the ground, to put the tools on, and the chuck is worked by a cord round the small part (which is furnished with grooves) in the drill fashion.

We saw a goldsmith at work also. He has an iron implement with holes of different sizes for drawing the wire and uses lime juice as an acid.

The filigree work is very pretty, though the tools are all of the rudest description.

A shoemaker makes very good shoes at about a dollar a pair. The leather is tanned with the bark of the mimosa. We got specimens of various fruits near Senna: they have probably sprung up from seeds that have been dropped from time to time by the people.

Weather very sultry and high winds prevail. The Portuguese say that the heat portends great rains and that, as the river has been very low, so next year it will be very high.

Dr Kirk shot an animal resembling very closely the tapir, but only a little larger than the largest rat. It had a long tapering nose, four toes, and tail like a rat: brown and spotted.

23*rd* At Nkuesa. We left Senna yesterday morning and, favoured with a fine breeze, came up quickly to [the] spot we met Baines in on our return from Tette. We had a good deal of difficulty a little beyond that, as we dragged the vessel bodily through about two feet of water, having sails set and much dragging from the anchor, as well as all hands dragging her. In the afternoon we were brought to a stand, the wind proving quite too strong for her, its effect on the deck house being sufficient to turn her quite round, in spite of the rudder. We made fast to the shore near a deserted village for the night.

Jumbo ill of fever, or indigestion, again. He is the only one who work[s] little or none, and is the only person who has suffered from this complaint severely. 25*th*. Better.

25*th*. Came from the point where first high bank is met with on South W. bank to Shiramba Dembe to wood. The water is now very shoal, and though the breadth of river seems large great banks are covered to about three inches only. They are quite flat, and of a half-moon shape. The water in coming over them seems to roll sideways, and, on falling past the convex edge, continues the swirl so as to work out a deep pool immediately below the edge. Several have partial pools slanting across them, and the pools are called Kwetes. The pilot's skill consists in detecting the Kwete at a distance that will enable you to pass above, for it is here that the passage into the main [?stream] beyond is affected. We see the banks at present as great flat yellow surfaces beneath the water. When we see the bottom patched black and yellow we cannot pass, and often what seems all yellow and impassable, on coming nearer, affords a strip of Kwete on one side for a passage.

28*th*. After passing the site of Shiramba we wooded at the great tree point and saw that buffaloes had run away on the approach of this puffing machine, the MaRobert. Cut a good many pieces of ebony and found a large shell in the hollow of one with the operculum quite osseous-looking. The Kroomen said this was evidence of much drought. Dr Kirk found a leafless shrub, all the leaflets being as it were, leaves, and turned sideways to the sun.

On leaving the big tree point we made for our former path of exit from Shigogo and spent an afternoon in dragging the vessel over a bank. Mortified to find it was necessary to drag it back again, for the pilot has taken us in there without any hope of getting through except by dragging her. 27, Spent another day seeking a channel.[1] We next proceeded to near Nyaka Senna and wooded there. On leaving this on the following morning (28) we found a passage into Shigogo, the third from the North Bank, which we neglected examining formerly. Came on to Nguengue and wooded there at midday. Then went on to Shupanga. Got the rice left to be beaten out of the husk all right. Found no passage through at Shupanga. Grounded hard at one point near it. Got her off, Kroomen going into water willingly. Grounded again—then a third and fourth time; very trying to their tempers. I thought I saw evidence of them failing at last. I feel very sorry to exact such work from them, but I am anxious to get up to Kebrabasa while the water is at its lowest. We shall have but little time to work ere the waters commence rising. The clouds portend gathering storms.

[1] This sentence is an interpolation.

See that the Agricultural and Horticultural Society of India mean to apply to me for plants such as may be suitable for transplanting into that country.

29*th*. Sent the men to wood at Shupanga while I went and sounded three channels in company with Dr Kirk. Found that we should be obliged to draw her through about her own length of 18 inches and twice that of 2 ft before we got into the channel. Mr Barbosa came down from Tete with letters from Charles and Baines: the latter has had fever and is very weak.

There are many tamarinds in the country. The natives take quantities of fine white ash from the lignum vitae and, having boiled the tamarinds, throw in the ashes. A violent effervescence takes place; the acid, which previously is so sharp as almost [to] blister the mouth, is neutralized and the fruit is eatable.

Mr Barbosa says that 250 Arrobas or 3200 lbs (=a ton and a half) costs 300 dollars for transport to Kilimane from Tete—£60 for transport and the chief expense is the overland from Mterra to Mzaro.

One bale of calico is 100 dollars at Kilimane. It contains 700 yards or 25 pieces.

Ivory is at present 45 dollars the Arroba, often 36 D.

Kushishone is a canal from Luabo to Kilimane.

30*th Octr*, 1858. We had a great deal of difficulty in getting the Launch past the bank beyond the inhabited island. The difficulty has removed about 100 yards higher up or Northwards, and we had to drag her over about 40 yards of only from a foot to 18 inches,[1] and this took us several hours. We are now past the great difficulty and feel thankful for the success so far.

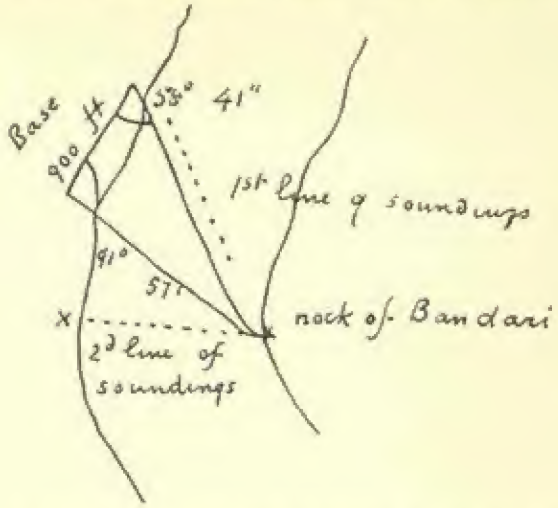
All the geese have their young now and, when very little, they keep close to their dam in the water. They then appear as if only her tail,[2] and the male continues with them to serve as a convoy, or rather decoy. He runs off, appearing as if unable to fly, to draw off assailants and takes to wing only when they are a good distance from the brood. When the goslings become a little older they leave the dam and provide for their safety by diving and scattering. The male is now not to be seen.

The scizzor bills, when done breeding, fly in flocks of about 30 or 40, and keep time on wing well.

Reached the rock of Bandari in the afternoon of 30th Octr and stopped for Sunday. As the river is here enclosed between two perpendicular banks, I considered it is a favourable point for ascertaining the amount of water it contains. So we went to the other

[1] *I.e.*, in depth of water. [2] So in the original.

side (W) and sounded across westerly. We measured a base of 900 feet with a chain on the Western bank and took the angles thus:



There is a permanent mark on the rocks twelve feet above low water at this time. The successive falls as marked below this in minute lines untill you come to with[in] two feet of zero or present low water mark, where the white deposit is much thicker. This is probably where it stands for several months of low water. The mark at twelve feet seems to be where it stands for some months, and about twelve feet above that we have the faint mark of floods (extraordinary). We marked with a broad arrow the twelve feet point as a standard, thus: L.W.M. (low water mark) sub. XII. Octr 30, 1858. The river has fallen two feet since we were here last.

2*d* 1858, *Novr.* Yesterday we passed through Lupata and anchored off the southern shore along which we have come, this time on account of the Northern passage being too shoal. A great many villages are built on this side.

3*d*. Came up to Mangara, the estate of Sr Manoel, the son-in-law of Bonga. He received us with great cordiality and set tea before us and then some gin, of which he partook very freely. When it took effect he became very talkative, and got his wife to come in where we were. We took her aboard, and with her child Cicilia we went about two miles. He was anxious to shew them everything, and it was pleasant to observe this, where women are rarely treated as equals. When coming up to Tette with us he told me that Bonga had not given his sister any dowry, and he ought to have received the half. We pronounced Bonga to be a beast, an

Ass, but it was necessary for him to remain quiet. When not so tipsy, he told me that he had spoken to Bonga about killing my men, and he declared that he had no idea they were sent, or 'Envoys', and he was anxious to have him see the steamer and receive some idea of greater power than he possessed. He had sent down to the Luenya to collect pebbles for the geologist, and had a bundle of Buaze for Dr Kirk. He makes a small plantation of cotton as a beginning.

5th. On reaching Tette we had to make some repairs in the Launch and, Sr Tito having given up the Residencia to us, we have got all into it and find the quarters good. He has sent us our dinners and breakfasts ever since we came, regularly, and seems not to wish us to buy anything. We are all in good health except Baines, whose head is a little touched by the sunstroke of the island.

Last evening a canoe was overturned by coming against the paddlebox. The men jumped into the boat and secured the whole, two women, a child, a boy and a man. They shewed a great deal of spirit and promptitude in the affair.

5th Novr, 1858.[1] A good deal of small pox prevails and I purpose to inoculate a cow with the matter from a negrinha who has the disease in a mild form, in order to get the vaccine virus from it. Dr Kirk was afraid that a worse than small pox disease might be produced, not having read the account of Mr Ceely in the B. and F. M. Review. I think it may be done with safety and, having got a cow, will make the experiment.

As soon as we get the vessel in order we propose to go up to Kebrabasa to examine it all carefully while the water is still low. This will probably be on Monday next.

6th. Went this morning to select a place for a tide pole to mark the rise and fall of the water at Sr Secard's house. He is making an enclosure there to serve as a small garden for experiment in planting our seeds.

Baines takes charge of the Thermometers and Barometer. Observations have been omitted for some time in consequence of the Launch being so small and so much influenced by the sun. He had an attack of intermittent [fever] which, as usual, went to his head. He thinks his certificate was, 'We certify our belief that Captain Bedingfeld is willing to retain the command of the Ma Robert till a suitable successor be appointed'. He is to be watched, as it is known he formerly had brain fever.[2]

15th Novr, 1858. *Tette.* This day week we started for Kebra-

[1] The repetition of the date is in the original.

[2] So far as the present editor has been able to learn, Baines had never been so afflicted.

basa in the steamer, and reached it in a day and a half. On Wednesday morning we entered the beginning of the gorge and found the river narrowed to from 60 to 80 yards in a fizzure about ten fathoms deep. Passing on about 2 miles we came to Kebrabasa and sailed past it without difficulty for 2 miles more. Here we came upon a rapid breaking a little at a place about 20 yards wide and, as there were cross currents, we were obliged to stop. Fearing the vessel would swing round, we went to the side, but with rather too much force, and made two small dents in her bow above water line. We left her there and, taking some provisions, went forward on foot to examine farther up before attempting to pass this danger. The exploring party consisted of Dr Kirk, Mr Rae, Joe the pilot, Villa Nova, and three Makololo and myself.

The scenery presented to our view is quite remarkable and totally unlike anything that has ever been said of the rapids of Kebrabasa. A series of lofty hills, among which those of a conical shape prevail most, encloses a dell resembling a river bed. This dell is the bed of the river at high water, and it is a strange mass of huge rocks containing a deep chasm winding from side to side along it. This fizzure or cleft is at first, on entering it from below, not more than twenty feet deep, but it soon becomes eighty (as at the point we measured it) or even one hundred and twenty feet deep. The presence of islands or huge masses of perpendicular rock makes the water branch off at some spots and there the main channel is as little as 20 or 25 yds broad; but generally it is forty or fifty yds wide. The rocks where the water flows for any time are all covered with a black glaze. Everywhere they present evidence of wear. The granite is often fluted perpendicularly, as remarked by Dr Kirk old wells are by the ropes in the East. Great potholes are worn out in other parts. They are gro[o]ved in every direction besides, and present evidence of tremendous wearing force being exerted on them on some occasions. The rocks themselves are chiefly igneous and they have been heaved up, contorted, bent, jammed and fizzured in every direction. Great round amorphic masses interchange with huge fragments presenting lines of double cleavage and various stratification. Pieces of rock, from mere pebbles to large boulders, have been driven into chinks by the mere force of the rushing waters so firmly they break rather than move; and generally all are worn so smooth it is difficult to walk over them.

The path we followed led to a village but this was deserted, and so was all the right bank on which we travelled, the people being driven away by a recent attack of Jura to the other bank. We there saw and heard a small cascade. Dr Kirk and I happened to get

separated among the rocks and he went to one cascade while I attempted to reach another. The sun was intolerably hot, and the heat reflected from the stones and burning sand felt as if coming from an oven. Dr Kirk descended to the cascade and was forced to let go the rocks occasionally, though in danger of being precipitated to the bottom. They blistered the bare feet of the Makololo.

This cascade seemed to have a fall or[1] water of six or eight feet in twenty yards: that which I went to see could not be approached on account of being separated by from us by[2] a deep chasm through which the water flows at times, but was now stagnant. There are deep gullies which are formed by eddies and they run in sideways to the vallies when the mountains enclosing the dell will permit. We saw abundant evidence that the water in flood rises more than a hundred feet perpendicularly and, as the rise at the opening is not more than thirty, the rush of waters must be terrific. Hippopotami in numbers floated in still parts, and alligators occasionally were seen putting up their heads, but no animals.

Saw two little boys playing on the opposite bank. Went on in the afternoon to another rapid, the fall in which might be four feet in 20 yds. Slept on the sand: 15° 42′ S. Lat.

Next morning we went on Northwards. Came to Elephants' spoor, quite fresh. About eleven A.M. came where the Mfisi, a river from Senga, enters Zambesi. Saw the latter still confined in fizzure and coming from W. A high perpendicular-sided mountain ended the view. Went up to a pinnacle to see it. Our food was done, so we resolved to return. Travelling back very fatiguing. All huts of the natives had patches of cotton, Tonje Cadja, around them. Some were planted near the water and their long vine-like branches were supported by trellises, but the cotton was wasting: no one there to gather it. We were in Shidima, but fortunately this was unknown to the Banyai. Formerly, when Monomotapa was chief, a certain fixed rate was levied and merchandise passed freely overland to Zumbo; but now no one cares for Katalosa and, as everyone exacts what he likes, it is unprofitable to go through. No Portuguese seems to have gone up to Chicova this way, and none knew of the nature of the difficulty to be encountered till we went.

I believe that, when the river rises about six feet, the cascades may be safely passed. If not, then at flood, when the water is spread over all the dell. It will be necessary to examine it at various states, and we mean to return in a few days to photograph the whole. We were so tired that we resolved to sleep about three miles from

[1] So in the original. [2] So in the original.

the Launch and sup on a goose Dr Kirk shot. João the pilot went off and brought chocolate and milk, etc., etc., and we spent a more comfortable night than we anticipated.

On regaining the Launch we went down river. On Sat. 13th, we had a heavy rain for several hours, the first we have had. Thermometer stood at 97° in shade for several days. Country very dry.

Reach Tette at mid-day of Saturday 13th.

15*th*. Send Kanyata to Chisaka with a present and message. Present, one railway rug, 2 imitation native cloths, 2 scizzors, 2 knives, needles several packets, thread and two pieces of cloth to buy grain to bring back to Makololo.

Thornton suffering from fever of a mild form; very pale and unable to work. (Herpes myself). Baines getting better.

Inoculated the cow to-day again: first inoculation did not take.

17*th Novr*. Kroomen guilty of bad conduct with women. One was nearly drowned in going from Pinnace. Ordered them on board Launch.

19*th Novr*. An attack of Herpes has rendered me a partial invalid all the week. Recovering now. We intend to go off to Kebrabasa on Monday.

22*d*.[1] Have laid up the Pinnace at Sr Tito's place, and various repairs made in the steamer.

Went to-day to get a group of gold-workers photographed. All their tools were shewn in the picture, which came off well. Went over to the Makalolo village and was shewn three tusks killed by the elephant hunters. One is large and, the animal having been killed on an unoccupied crown farm, the Portuguese Government claimed one half, or one tusk, and the meat of one side.

The Makololo informed me to-day that they know the eggs of the Tsetse, that the insect spins a sort of web and places its eggs therewith on twigs of trees. They are of a reddish colour and are said to abound in places frequented by buffaloes. They lay their eggs in the cold weather.

Sent the Makololo to collect insects and buaze: they collect large quantities of them, but chiefly of one kind. They enter into this work with spirit. They suffer much from hunger now. No attention whatever was paid to the order of the Government of Lisbon to support them at the public expense of the Province of Mozambique, and indeed how could it, for I brought out the order myself to Sr Tito, though it was stated to me in April 1857 that the

[1] So in the original: this may be a slip of the pen for '20*th*', the next entry being dated 21st *Novr*.

order had already been sent out. Major Secard, seeing that it was impossible to support so many, got all of them employment, some as boatmen or with traders or Elephant hunters or woodcutters, and kept the four headmen only. We are indebted to him and to their own industry for their support. Sr S., knowing the exclusive nature of his own Government, laments that I did not get my exequatur for the Rivers of Senna as well, for, says he, ' When the Expedition is over, then you will be recalled to Quilimane '.

Sr Manoel Gomes being very anxious to have his portrait taken, I gave orders to Baines to take it in oil. This is a mark of respect to a friend who treated me well when, poor and lonely, I wended my way down the river. I cannot visit Bonga, for I find he killed my men deliberately, ordered them a house and a pot of beer and then cruelly murdered them all.

Heard to-day that when a man dies his friends cook porridge and a fowl, purchase beer and then place that, with the dish he used to drink out of, the pestle that pounded his corn, and sticks he brought to his fires. These broken or burned at the meeting of two roads. This is done by way of keeping him away from them and their houses and gardens. They thus believe that the disembodied soul is alive and capable of acting.

We have a thunderstorm to-night and rain. This will perhaps save the seed corn which the continuance of hot weather, after the shower of last Saturday morning, threatened to kill.

Things look dark for our enterprise. This Kebrabasa is what I never expected. No hint of its nature ever reached my ears. The only person who ever saw the river above where we did was José St Anna, and he describes it as fearful when in flood. This I can very well believe from what I saw. A Governor sent down two negroes in a canoe and neither they nor canoe was ever seen again. Then a canoe alone, and that was smashed to pieces! What we shall do if this is to be the end of the navigation I cannot now divine, but here I am, and I am trusting him who never made ashamed those who did so. I look back to all that has happened to me. The honours heaped on me were not of my seeking. They came unbidden. I could not even answer the letters I got from the great and noble, and I never expected the fame which followed me. It was thy hand that gave it all, O thou blessed and Holy One, and it was given for thy dear Son's sake. It will promote thy glory if Africa is made a land producing the articles now raised only or chiefly by slave labour. . . .

21*st Novr*, 1858. *Tette*. We start to-morrow for Kebrabasa in order to examine it afresh to the end and take drawings and photo-

graphs of it while the water is still low. The rains begin to fall now and the weather moderates a little. It is astonishing how little the Portuguese know about the matter. One this evening declared that there was no waterfall at Chicova. It was only a rock in the middle of the stream which caused an eddy, and he would shew me a canoe which burst away from its moorings and came down safely. Several or at least three visits will be necessary, one now—water at its lowest—again when half full and again when quite full. All go in the party, as change will do them good.

Walked up the hill this evening and saw many human bones lying about. Some bury their dead, others hang them on trees, and others put them in the Zambesi. They think in cases of epidemics that those put in the river will moderate and cool the force of the complaint. Those hung on trees will become scattered and so will the disease, while some believe if one of a family with small pox should die all will perish with him. Saw a broken box, clothing, beads, pots, dishes, placed at cross paths belonging to the dead.

The Maravi make an infusion of a plant called Moshenamua and drink it in order to give appetite, and it is said to have that effect. This is the nearest approach to tea drinking I have heard of among them.

They pound the leaves of a certain plant and, applying ashes to them, produce a red dye.

A small tumour formed on Wilson's shoulder and, Dr Kirk having touched it with nitrate of silver, a maggot or grub, resembling a minute bot, was taken out. Jumbo subsequently took one out of his thigh and one was got out of Walker's leg or ankle. The Makololo inform me that the egg is deposited by a small green fly, and they sought one to shew it. This is decidedly a new insect. The fly is called at Tette Chenshe. The Maggot is named Ngonye. Fly is also called Mantaka.

Sugar is made by the people on the North bank of the river in considerable quantity. I bought six pots of it, each containing about 20 lbs, for two fathoms each. Suppose the fathom here to be as it is at present, 1/6, then we have it about 1½ per pound. At other times it is only a fathom for each pot weighing 20–25 lbs. The men who have been accustomed to use sugar on board men of war prefer this to what is usually supplied there.

21*st Novr*, 1858. During the night the water suddenly rose about a foot. This is the first time the influence of the rains has been observed this season. On going on board next morning to sail for Kebrabasa, which we did about 10 A.M., the rise was quite noticeable and the current, catching her bow, nearly ran her ashore:

the paddle wheels stopped. The rise seems to disturb the alligators, and I observed three instances in which they swam with their heads and back ridge of scales out of the water, looking at us as if we were some large animal swimming.

Saw a bird with long feathers protruding from near middle of wing—species of caprimulgus. Male has these appendages now but loses them, and becomes like female at other times of year: called Rumbe by Banyai and Pompua by the Tette people.

Tette people believe that certain ghosts or hobgoblins called Mchesi live among reeds and in gardens. They kill anyone who may be found alone and take certain parts of his body to mix with the seed corn. They believe also in the metamorphosis of men into animals and that they may inflict vengeance. Thus a man is supposed to keep one, or have it as a familiar spirit, and should a woman refuse him, he could send his familiar spirit to kill her. When women are caught by alligators, others say only she has been doing something to offend some Mosimo or god, or she is a witch.

Seampanga, Batoka name for God. The rainbow is called by them Pinnijongo; the Great falls Seongo. Is there any connection between the two?

22*nd*. Came up to Sr José's and he accompanied us to describe the rapid and country adjacent. He brought provisions aboard with him. Ascended Panda maboa hill; found copper in marble.

23. Sleep near Kebrabasa but find the name to be Kaorabasa or ' cut the tail or service ', and this is not the spot. There is no name for the whole rapid. The ship stopped the first time we came up at Shimadzi, but this time at Zanangua Rivulet, for fear of a rise of the river while we were absent. The side (Eastern) where she now stood is called Nyansinga. We made up a party consisting of Dr. Kirk, Mr Livingstone, Mr Thornton, Mr Baines, Mr Rae, José, 10 Makololo and five of José's people, with one of Tito's as pilot, and started on the morning of the 24th November, 1858. On reaching the place we have as yet called Kebrabasa, we were told its name was Mashitabsiwe. That day we reached the falls called Shibade, and Baines sketched while Mr L. photographed them. We were unused to the fatigue of travel and all felt much fatigued by a comparatively short march. The fall in this rapid or cataract was five feet in 20 yards, but it is comparatively a straight one.

26*th Novr*, 1858. Went on to another, Kondidzoa, rapid and left Baines sketching while we went on some miles. We passed the village beyond the conical hill Kari. The rivulet is called Chinapsa. No provisions could be purchased. One European knocked up by the heat.

The prominent stars have names bearing the same signification as they have farther up the country. Thus Venus now is called Ntanda or the first born when she appears at night, and Manyika, the first born of morning, at other times. Sirius is Kueua o siko (segogi bosigo) drawer of night, because it comes up drawing the whole night after it.

Kondidzoa rapid had a real fall of 5 ft in 20[1] yards. We passed it on 26th. The river is divided into three portions by a rocky island: the part on the opposite bank seen by Dr Kirk has a fall of 5 ft in 20 yds. This, the Eastern side on which we were travelling, has but little descent.

This evening slept at bottom of Nyavokusa hill.

Shot a goatsucker with two long feathers, from head to tail 10 inches: The long feather of wing is the ninth from the outside: the feather itself is 26 inches long and it [h]as a slighter one beside it. Only the males possess it. From tip of wing to end of feather 31 inches.

On 27th attempt to make a bridge across Lui or Luye, but fail. Wade it waist deep at a point higher up. A Rivulet called Kaposhe comes in from its right bank higher up and there in former times Ferrão had gold washings. Lui is small but rocky and rapid. A hill on South bank of Zambesi is called Nyaotetezi. We came opposite to it on 28th and left Thornton ill.

Tsetse, called in Tette tongue Pepshe, appears here.

29. José's servant killed a hippopotamus, Full grown cow with calf sucking. Height at withers, 45 in. Entire length from tip of nose to end of tail, 11 ft 3½. Tail, 14 in. Eyelid to eyelid 13½. Nose to tip of shoulder, 51 in. Girth of waist, 102 in. Centre of cornea to centre of ear, 8 in.: do. to lower edge of Jaw, 17½.

The animal had a well marked perineal rupture, scarcely healed,

[1] Later Livingstone cancelled this figure.

and the meat being lean shews it may have been long ill with the wound. The point is shown in the photograph.

Very few people appear and these are afraid of us. Their name is Badema, and José reports that they were formerly cannibals, but gave up the habit on hoes being given them by one of the adjacent chiefs. Gardens are now made in the loftiest and most inaccessible places. The trees are felled and burned and the little soil carefully turned over with their tiny hoes. They have small springs at different points in the hills. The cause of their present shyness to us is probably the fact that of Chisaka's people having lately made an inroad and carried off most of their children. Their manners are as different as possible from those we usually ascribe to mountaineers, but this I have observed in other instances in this country.

Having left people to cut up the hippopotamus, we went on to Shipirisioa[1] but before we reached that point, Sr José felt at fault, for here he had seen the great turmoil of the waters from a height, and imagined it to be a waterfall. José Pedra, Capitão Mor de Zumbo, otherwise named Nyamatimbira, was the man who sent down the canoes by way of experiment.

When we reached the beginning of Shipirizioa, Sr José was evidently disconcerted at finding nothing and declared that he had seen this point at a distance foaming fearfully. He has always spoken truthfully and as he has been held forth by the other Portuguese as the great authority in the matter, we came to the conclusion that they were quite ignorant of the nature of the obstructions to navigation. At Shupirizioa we found a very narrow part (20 yards) but it was quite calm. Dr K. and I went on beyond where Baines was sketching the highest point of Shuperisioa. Mount Stephanie we named it, in honour of the young Queen of Portugal. We saw a rapid beyond, but the [way] was excessively rough. We attempted to ascend a spur of Stephanie but could obtain no view in consequence of the trees which line its flanks. It is high (3,000 ft) and the upper part consists of bare perpendicular rocks of a bright yellow colour. We passed over a great many fine chocolate-coloured yellow and blue porphyries of beautiful grain and did not begin to collect specimens, as we could not have done less than fill all our pockets, had only a commencement been made.

While sleeping to-night a man on the opposite bank was killed by a Leopard. The reach beyond where we turned was N.W. by W., or N.W. to the hill Nyakapiriri. Another R[iver], 6 or 7 Knots.

Novr 30th, 1858. Return to those left at Rivulet Pandazi to cut

[1] Later Livingstone calls it Shupirizioa.

up hippopotamus and found them all ready to start and join Thornton. We found him well again: in the evening slept there.

A party of people from South side had come to beg flesh, and José enquired of them the nature of the river above. They asserted to him that there was no other rapid or waterfall than what we had seen, but this evening Masakasa, the Makololo, told me that the same persons informed him that there was a waterfall as high as a tree and, though perishing with thirst, it was so difficult of access a man would retire in fear from it. Considering through the night that there must be truth at the bottom of this statement, and believing it to be my duty to ascertain at least the extent of the difficulty before making any report home, I represented the matter to the Makololo, who saw the affair at once in the same light I did, and next morning announced my intention of returning, as it had never been my custom, when alone, to leave a matter unfinished. Dr K. thought it would be considered an insult to the Expedition if I went alone, so I gave consent to his forming one of our party. With four Makololo we marched back from near the Lui to a beautiful valley situated West of the mount Stephanie. It has a fine little stream of pure water flowing through it. Many date bushes grew on its banks, and there were gardens of maize nearly ripe. The headman, who wore a wig, was named Sandia. He presented a basket of green maize and sent his son and another (Skokumbenie) to shew us the way. He declared that the river was narrow but had no waterfall. After leaving him we came to a small village which drank of a deep well of slightly chalybeate water: very delicious and refreshing it was. We observed that all the defiles that contained tufa had water, while those in which the porphyry alone was exposed had none. The water of the valley was also chalybeate, and so was a spring José and we found in going to the Eastern base of Stephanie. Several recent lava streams had run down the sides of the mountains and, from the masses having split, become rounded by time. José had concluded them to be the former beds of the Zambesi before it found its way into its present channel. Several of the rivulets near these contained a great deal of calcareous tufa, and much of it was deposited in rings or basins of from 2 to 3 feet in diameter, and shallow. As the evaporation from the water-laden sediment went on, the lime was deposited at its edges. Where it had run over for some time a porcellaineous crust had formed [and] there were incrustations on leaves, reeds and grass.

The villagers came down to our camp and at once tried to dissuade us from going to the fall. It is so difficult neither Elephant nor hippopotamus can tread there. Not even an alligator dare enter

it. On asking how they knew it if it was so inaccessible, they slyly remarked that they had gone to a point where it could be seen from the other or South side, and then they had been obliged to take off all their clothes. This side could not be approached. As the Makololo thought that the villagers were afraid of our finding a passage for commerce, in which case the Banyai, who now derive large quantities of cloth from traders who pass overland through their country, might in the event of losing this gain, attribute the blame to those who shewed the path, we resolved to go on and urged the duty of the guides obeying Zandia in preference to these villagers.

2 *Decr*, 1858. This morning we were led by the guides away down South East to the back of Stephanie—or Surua, as some called it—drank of another chalybeate well and then came out at least 1,000 or 1,500 feet above the Zambesi. The river, quite narrow-looking, lay between two ranges which sloped pretty abruptly down to the water's edge, leaving no level space as a bed, as it is farther down. There is a bad rapid, opposite the part of the flank of Stephanie, which we did not see before. It has two rocks in it, each about 8 feet high. This our guides asserted to be the great fall, and we all felt inclined to believe that, when they spoke of the impossibility of passing, they referred to their own canoes, which, in a rapid with high banks, can neither row nor punt. On reaching the bed of the river, after a descent of 1,000 feet or more, we took breakfast. The Makololo now told me that they were completely done and could not go on. The guides, too, refused to stir, so Dr K. and I went along the bank westwards, but our pace was not more than a mile in three hours. It was a perpetual sprawl over boulders of huge dimensions. In the afternoon we rested under a tree and, after some time, Sininyane made his appearance, stating the inability of his companions to move on and the assertion of the guides that no path existed there. After looking from the nearest point we could gain to the end of reach, we turned back and, when we had got about half way, we met the party coming on. We halted for the night of 2d. On the morning of the 3rd Decr we breakfasted and came to a dead halt, urging everything we could think of to induce the guides to go on and shew us the fall which from their description I felt sure existed. They refused steadfastly, though I urged the displeasure of Zandia, possibly also of Chisaka. They at last said they would go to die with me. The Makololo declared that they had always believed I had a heart till now, that I had become insane surely, for they shewed[1] me the broken blisters on their feet in vain and, if they could only speak so as to be understood by the other

[1] 'Shewn' in the original.

doctor, they would return with him and let me throw myself away. After waiting long to allow the arguments to produce full effect, the guides started up, I believed to return but waited to see what direction he[1] should take. We went westward. First time we halted they came to a deadlock again and then the Makololo tried to persuade the Doctor by signs to turn back with them. Starting onwards, we came to a fisherman mending his net. He gave the guide who was forward with us a fish and pointed out a way by which we might get on far enough to see the fall. We very soon were worsted by a perpendicular rock which required to be climbed for 300 feet over a perpendicular rock. The heat was excessive, probably 130°, for the hands [? could not] be held on to the points we were in our ascent fain to grasp. There we were, clambering up the face of the slippery promontory, certain that, if one of the foremost lost his hold, he would knock all the others down who came behind him. When we got over this we began to see the cataract at the sudden bend which the river makes at Masianyumbo mount. It was about 30 feet high but inclined at an angle of about 30°. There are two large stones on one side of it and on the N.W. bank a ridge of rocks is thrust out and causes an irregular flow of the water. It is not more than fifty yards wide; is named Molumbua or Morumbua. Both banks consist of high perpendicular slippery Porphyritic rocks. We tried to get nearer but deep furrowed gullies prevented us. I dropped a tape line from the end of one of these which was deeply furrowed with potholes, and found the height to be 53 feet. The river rises at least 30 feet. There is, as a low estimate, fully 80 feet of perpendicular rise. The black discoloured rocks are forty feet high, so the rise of the river must make very great difference in the appearance of the cataract, if indeed it does not annihilate it altogether. The water however is jammed between the hills Nyamakombi and Masianyimbo, and the perpendicular furrows it has made shew the force with which the water is dashed from side to side. It will therefore be necessary for us to return and examine the whole again when the river is in flood. At low water a vessel cannot pass. At high water one of 12 or 14 knots' power might, but to make it permanently available for commerce the assistance of a powerful Government is necessary, and a company of sappers would soon clear out the channel. This is perhaps the most favourable circumstance connected with the affair, for it would be difficult to induce the Portuguese to give up their pretensions if they could take all the trade into their own hands without.

[1] So in the original.

In the afternoon we commenced the ascent of the hill Nyamakombi on the N. bank, and it took us at least three hours' constant cutting to make a way to the top. A great many climbing plants grow on it but, notwithstanding the difficulty of the ascent, which was at least 75° or 80°, one of the guides carried a huge pot of water all the way. We descended on the opposite side and, as far as the eye could reach, in the blue distance there rose an endless succession of lofty hills, chiefly of the conical form. We came to our sleeping place beside the village and its cool water from the deep tufa well, and stretched our limbs for the night on the dry and crumpled leaves which formed the first night's bed.

Pajodzi stands W. (mag) from this point and Morumboa falls are S.S.W. from the same point. In the morning march we reached Zandia again, and again got some maize. Each village has its own patches of cotton, generally of Tonje Cadja or native cotton. Here was a rude loom in which an open kind of gunny bag is woven which all value highly: Saro is [the] name it bears. Komba is to weave, Sanza to spin, Nkamba a spindle.

Observed that there is a fine cuticle to the Baobab which is often scorched and peels off. Observe if it has an internal cuticle too. Parts high up are seen to have been peeled. This makes Dr K. believe the whole thing goes up bodily, but the natives explain the reason of going up so high is holes in the bark below prevent their taking off large flakes of the bark there.

(On Novr 28th marked a Baobab 58 inches from the bottom figure 5 in 1858 to end of arrow)[1]

Note. The walking was a very different kind of exertion from common travel. It was necessary to leap from rock to rock or clamber and wriggled over and round others, or slide down so as to gain a sure footing. The whole system was shaken and strained to a degree few can conceive. Our shirts were wet. Perspiration ran off the eyebrows and we drank profusely at every bend that led us down to the river.

Motaonyere, a tree the leaves of which are smelled at to relieve headaches. It seems to contain prussic acid.

5th Decr. Our provisions were going done[2]: we had only biscuit, chokolate and tea left, so we pushed on with vigour. Passed a little well, near the bend of river where there is a village on the opposite side, which was decidedly sulphureous and chalybeate. Slept near Lui and crossed it by wading on morning of 6 Dec. Here in going I lost a beautiful silver cup, the gift of a kind friend. While leaping from one stone to another the cup sprang

[1] So, obscurely, in the original. [2] So in the original.

out of my pocket and, swimming, was carried down the stream so rapid that we could, breast-deep, scarcely keep our feet.

Between 9 and 10 met Mr Baines coming with a supply of provisions for us. He was sketching, as he always does, indefatigably. We went on to Shileade, then slept at Shimadsi. Next morning the boat came up for us, and we examined a hot spring which Mr Baines, in tracking the boat, found. It was at least 140°, had an efflorescence of a peculiar borax-like salt about. Comes out of a porphyritic rock.

On reaching the ship we got up steam and reached Sr José's by sunset. He presented us with fowls, bread, a goat and a large pig. Next day we entered Tette and found a portion of our house blown down in consequence of a column giving way, being built with stone and mud. The question was naturally asked if we had discovered anything of value. I mentioned the marble we had found on the top of Panda Maboa. Some of it contains points of green Carb. of copper which in former times is said to have been worked by the Maravi when they were in this part of the country.

José pointed out to me Zimika hills which I crossed, and another, Shikoma chi sina vusi, hill without hair = bald hill, being bare on the top. Motase = range E. of Pande Maboa. Seampanga = God? Pinijongo, rain bow. Seongo = Mosi oa tunya. Mchesi, men metamorphosed who now kill others. Nténe, name of species of nux vomica, the pulp between seeds of which are tasted like strawberries.

We got one tree of very good Motondo: one of this fruit measured 8 inches in circumference and was 3 in. long. The gum is good.

Remark—When we saw Shibade fall first time, the fall was five feet: but now, the river having risen three feet, it was now nearly level and could be ascended by a powerful steamer.

Mpuapua, gum-bearing tree.

6th Decr, 1858. Arrived at Tette this morning: no rain yet. The season is unusually late this year. One man complained to Major Secard, when river became muddy, That the English must be doing something up there to cause it. Others lay the blame of the drought on us. A European captain wished to send his servant to take the ordeal after his child died, but commandant threatened to send him prisoner to Mosambique if he did, and it was not done.

Kanyata had returned from Chisaka's where he was well received and fed abundantly. The present chief admitted that murders had been committed, but not by him. His predecessor and father had been guilty: he is determined to live in peace,

Town and Fortress of Tete. Left to right main features are: Island, Fort, Boat Harbour, Church, Hospital, Mount Pinza and Senhor Tito's or Expedition House, 1858

wishes much to see me and sent two tusks of about 20 lbs each as a present. We go there after our return from Shiré.

7. Feast day—Conception day. Hot weather. Partial rains happen round about.

Tribute paid to Landeens of Manikus or Manikosi for Shupanga, 300 Dollars or 50 pieces of cloth, each 16 yds. . . .

Ferrão['s] son pays more for Shiringoma.

Nthope, a gum for mending pots.

Mokononga = Motsouri.

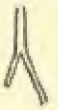
Nyamuntambue, a kind of very musical thrush shot by José.

(Chixapsa Rt, Nyamisenga, Nyangalui, names of Kongone and its branches near sea).

Tette, 12 *December*, 1858. Had a slight touch of a cold which, as most diseases in this country do, assumed the form of a partial fever. The malaria seems the link that binds them together in a family tie. They are congeners and are produced by the morbid influence acting on different organs—the head, the stomach and bowels, the spleen, the liver or, as cachexia, over the whole body. In the female it appears as profuse menstruation.

Quinine has a good and prompt effect in all cases if used with other remedies and in sufficient quantities. I took about 30 grains about 6 hours, and it made me deaf soon after. I remained so till this morning and am now well (13th). When bowels are constipated these must be cleared out while it is given.

House struck by lightning on night of eleventh: went out to render assistance, but none was required. Got wet, which made me worse. House burned down.

13*th Decr*, 1858. Went over to Miranda's to see if cotton had sprouted after these rains which commenced while the people were making a special prayer to St Antonio. Got a new lizard about a foot long which eats eggs, as shewn by its teeth being placed far back on the palate and bent that way. It had a forked tail  , the short one having, I suppose, been crushed and the new tapering part produced.

18*th*. Cotton sprouting. I have been troubled with unusual languor several times since our return from the rapids. Had a touch like slight fever. Find it difficult to write my despatches.

As far as our experience goes the Kroomen are more liable to fever than a white crew would be. Wilson is ill again—this his second attack. We have Mangoes; great abundance at present.

19*th Decr*, 1858. *Tette*. One can never remain long in an inactive state of body in good health. I have found this invariably and am not so well when writing despatches as when more actively employed.

Mr Baines made some illustrative sketches of the rapids: this delayed us a week. Found we could not send a branch party out to the Bazizula country on account of scarcity of provisions on that side.

20*th*. Left Tette and went up Revubue to visit Mr Thornton. He reports having found three seams—1st seven feet thick, 2d thirteen feet six inches, 3d twenty five feet in thickness and in a fine cliff section. The last had been fired by lightning a few years ago and burned for a long time. The largest seam in England is 30 feet thick.

On 21st came down and slept on entrance to Lupata: 22 in Shigogo, 23 Soni, 24 near upper end of Senna canal.

25*th*. At Senna Sr Isidore brought money of Sekeletu's ivory: sent £50 back to Kilimane. Finished despatch No. 12 and sent it and sketches and Photographs off to Kilimane.

27. Left Senna and slept near upper mouth of Shiré. 28. Entered this river and ascended to Northern end of Morambala. Will ascend to Moerungo to-morrow. Saw curious nest of a species of reddish yellow clear ant.[1] It is about the size of two closed fists and is made of leaves glued or sewed together. Some of the leaves are withered, others, belonging to the branch of the tree on which it is perched are fresh and green. The ants give battle readily and sting keenly.

Saw a large grub taken out of a tree. It bit a piece of wood and clung to it. It seemed to have broad flat feet above as well as below, to assist its progress in the hole it has bored in the wood.[2]

At highest point we attained on North end of Morambala Air 64° 7½ A.M. 30 Decr, 1858. Barometer 29·961

$$\frac{3{\cdot}305}{26{\cdot}656}$$

At Moeringa 26·959.

31*st December*, 1858. At anchor opposite Northern end of Morambala. Went up to the top of it yesterday. It is very steep but nothing to the mountains of the Badéma. Found a large summit pretty well cultivated. The vegetation reminded me

[1] So in the original.

[2] Here follow four pages of pencilled notes of native words, barometric and other observations and a very rough sketch map of the Shiré 'beyond N. Point of Morambala'.

strongly of Londa. Many plants and trees are identical. Ferns abound, and gingers. The deep gorges are very grand. The chief, named Moerungo, was very civil; at once gave us two huts. He then plucked a plate of oranges from trees planted long ago, as their lichen-covered trunks testified. Indeed oranges and lemons have taken so kindly to the place as to be like the indigeneous trees.

Moerungo's village is in a sort of hollow on the top, and there is a fine stream of ferruginous water flowing past. He brought us a pineapple too and in the morning, when coming away, he gave a mess of boiled peas or genuine ' pease brose '.

The height we attained, though not the highest point of the mountain, was upwards of 3,000 ft. Clouds rest perpetually in the mornings on its top and the air felt very cold (62°). We tried the height both by Barometer and boiling point of water. What fools the Portuguese are, not to have a Sanatorium here! No fever—though in looking down Westwards, we saw the Shiré winding along thirty or forty miles of plain, and here and there giving of[f] branches which form lakes and marshes. No wonder the hippopotamus grows large tusks in it. The plain is the very picture of an amphibious animals' paradise. In the morning we saw it all covered with fleecy clouds like an extended plain of snow and ice. One pinnacle alone pierced through it. In the distance the mass was piled up on the hills like ice bergs. Where the Shiré does not overflow trees abound. Indeed to the N. and E. the country is one vast forest with conical hills dotted over it. The plains of the Shiré have no trees and large quantities of the lotus roots are now brought from it. The root is about the size of a small nut and when boiled tastes like chestnuts. These are the delight of the Lotofagi and an African might be so termed if their country produces them. Even from the pools of the desert the Bushmen eat them.

We went down to the Hot fountain and found the temperature 174°. It is slightly sulphureous. Had a good bath 100 yds below the eye. Muddy bottom but it does not stick. What a boon this would be to persons afflicted with skin disease, but the Portuguese durst not go near it. We went with two of Mariano's people as guides and two of Masache's joined us on the way. One of the latter stole two spindles, with a quantity of cotton yarn on each, from a village at the top. The people followed and I gave them back, and half the man's pay as a fine.

We met many people coming from right bank of the Shiré with quantities of the fruit of the wild Palmyra. The outer stringy

covering is eaten. It is of a deep orange colour and pleasant smell. Large quantities of grain are growing everywhere but the people seem miserably poor and very much afraid of us.

This is the last day of another year. . . . We ascend the Shiré across the plain to-morrow.

3d January, 1859. Leaving Morambala on the first we steamed up the Shiré and met many people coming down in canoes. They had been digging the roots of the Lotus. The general direction was North, though the river winds considerably. Several branches depart from it on the Western bank and, forming lakes, unite again and flow to the parent stream by the Sokuru. We see patches of water in extensive prairies covered often with carix. The whole valley in which the Shiré flows [is] bounded on the west by the Matundu range, otherwise the Manganja mountains, and on the East by a range of which the conical Makanja is the most remarkable object. It is about 20 miles broad and all amazingly fertile. It could all be drained and irrigated. The Shiré, about 80 yards broad at Morambala, widens as we ascend to 150 or 200 yds. The banks generally not more than 10 or 12 feet high. The villages of Pinda appear on our right, close by groups of trees which jut into the swampy plains. There are no trees in the valley. Reeds, or more generally coarse grasses prevail.

We passed Mozima's village on Saturday afternoon, being anxious to get near to forest for a supply of wood. This we found at the next village and remained over Sunday. The women have their upper lips frightfully distorted. Many were drawn out so as to be 1½ inches beyond the perpendicular of the nose, even when the ornament is out. When the ornament consists of a ring of ivory nearly 2 inches in diameter it hangs over the mouth and all the teeth are seen through it. Teeth of men filed so as to be double pointed: done with a stone. It is awfully ugly.

There is a considerable population in the valley and a very great quantity of tobacco is cultivated along the banks of the river. This afternoon we passed many fishing baskets moored by strong ropes and stakes. They seem to be about six feet long, by four in diameter at the wide end. Fish are speared also.

We see many traps for killing hippopotami. They consist of an upright pole, having a forked end. A log of wood is suspended to this by a kind of spring, and a rope descends to the ground, which when the trap is set, is attached to a latch designed to be let off by the animal's foot. Several were seen without the barbed spear at the lower end of the log, as if to accustom the animal to come out at that

point without suspicion untill the owner thought proper to insert the weapon. It is said to be poisoned.

Hippopotamus teeth are often offered for sale, and one elephant's tusk. Fowls 12 for a fathom of calico. People black and Manganja.

This evening we sleep opposite the village of Tingane. He enquired why we did not come and sleep in his house. The ship excites great interest, but generally it is not fear but surprise. Some push off boldly to us at once, the desire to trade overcoming all fear. Rains now every evening, but weather pretty cool and, as usual, more bearable than before rains began. We now take our Quinine again.

4th January, 1859. The banks are very well peopled, and every now and then a crowd appeared, looking with evident wonder on the strange sight; but we could hold very little intercourse because of having one of the worst possible interpreters—a slave who does not understand Portuguese and will not translate what he does know. We came to a village where plenty of wood lay about and, having given the headman a present, we sawed up what we needed. Then went on to Tingane's. The people asked us why we did not come and sleep in the chief's house. I replied that we were already in a house, but [were] much obliged to them for the offer: but the interpreter would not say so.

In the morning of the 5th we went ashore and found the village in a sort of natural stockade made of dense forest. The chief gave a present of food in return for two yards of white and four of checked calico. The women appearing to have very large lip rings, I bought an ivory one which in size and shape was exactly like the rings for putting table napkins in. The poor have bits of reed or calabash only. The lady was loth to part with it, but the sight of the cloth prevailed. We bought also four or five spindles and cops of cotton yarn from them.

Leaving Tingane, we proceeded up the river, which bears very much the same character, only the banks rise to about six feet and groups of trees are come to at the bends. Villages very numerous and great quantities of tobacco, pumpkins, ochro, etc., cultivated by the people.

6th January, 1859.[1] About mid-day we came to a village of another chief also called Tingane, and a crowd of men ran down to the water's edge. One man seemed to speak, from his gesticulations, so I stopped the engine to hear. He asked where we were going and, on my telling the interpreter to tell our objects, he began to entreat the man to allow us to pass instead. The headman, hearing

[1] Written '1858' in the original.

this, ordered us to stop and, as it was vain to try and get this slave to speak what I said, I thought the best thing I could do was to go on and thereby demonstrate what I wished, namely, that we English did not want ' leave to pass '. About 300 yds further on, another large party stood and as the headman spoke civilly, I stopped to talk, but this fool of an interpreter would do as his fears dictated. I told him to ask where the chief was; this he would not do, though I repeated my request again and again. ' He is there. He is up at his house ', and then would begin to beg the people to allow us to pass! Having anchored I called on the chief man, who had now come from the other place, to come on board. He refused but, telling him myself if he did not come, I would go on, he at last came with five or six in a canoe and would not step on board till a hostage went into the canoe. I gave him a present for his chief and two yards of calico to himself, shewing him at [the] same time our arms and telling him if we wanted to fight we had the means of doing so but were not anxious to quarrel. He went off satisfied but I was very much dissatisfied, as it appeared to him he had forced us to ask his leave to pass, and he shewed it by calling out to us, Go, go, go, when he reached the shore.

The Makololo do not understand the Manganja, but I intend to make them speak the Tette tongue to another man we have on board, and compel him to translate literally. I never was so badly off for means of communicating with the people.

We stopped at Gamba and cut a good quantity of wood, then went on and entered into a very extensive plain where the river is far from trees. We had a good breeze and pushed on. Saw several herds of elephants; at one time 100 were in sight. They were feeding among the long grass with which the plains are covered. Coming close to a herd of bulls, they were fired into and one stood at bay, wounded. Another waited till he got a volley and he prepared to charge, but a succession of bullets in his face made him desist. Seeing no wood in front, we went on till an hour after dark and then, as we anchored, a hippopotamus made a plunge about 3 yards from her stern. These animals are in great numbers. Every still place has a herd of them, and they are very tame. They jump up much more than elsewhere. Many traps were seen, but, as we proceeded next morning, we came where none, or other signs of population, were to be seen.

Came on, trying if possible, with the little wood we had left, to reach an immense group of Palmyras in the distance. The river is very much branched. We got a hut with an elephant's bones about it: these, with a little coals we had left, enabled us to reach wood.

Came to elephants again, and one was badly wounded. He would have supplied us with flesh and his bones and fat with fuel, but we lost him. Elephants and buffaloes and water bucks abound.

When we got a tree it was near a village, the owners of which had left fowls and three cats in possession while they went to cut up some animal. Inhabitants appear to be on the flanks of the hills which bound this great valley.

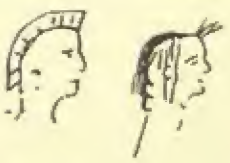
A swarm of white insects quite covered our table last night, laid their eggs, and died.

We use quinine wine: smell from swamps very strong. Water deposits a sediment of vegetable matter when it s[t]ands a few seconds: is of dark brown muddy colour in river. Heavy rains all about and on us every afternoon. Sun feels very hot but general temperature is much cooler than it was before rains began.

9th January, 1859. On the 7th we reached and slept [at] Kankokue's; went ashore in morning. Great crowd at landing place, but it took to flight on seeing the boat hook put out as if to catch one. Old man spoke instead of chief: said he had been to Quilimane, but his courage failed when he got into boat to come off.

River wide and shallow. On wooding people came round and asked payment for wood. This I declined, as the yielding to one demand causes another.

Headdress curious—a ridge running back like a miniature helmet. Women hideous really from the distortion of lip. Palmyra 75 ft long, 19 in. in diameter at two feet from ground, 21 in. at bulb.



8th. Banks become high, but of red sand only. People swarming. A crowd followed us, but when we stopped and told them where we were going, said they were only looking at us.

In the evening fired at a hippopotamus, and [at] next village we came to, a sort of natural stockade in dense mass of vegetation, saw a man come out, prepared to shoot his arrow. He tried to hide, to see if we would come nearer. Then came another, also prepared with his arrow laid across his bow. Stopped and explained. All are armed with bows and poisoned arrows. Explained to some we saw on the bank last night.; but this morning a crowd of some hundred, all armed with bows and poisoned arrows, stand watching us. After prayers we go ashore to cut wood, as we dare not stay in

this fetid swamp. The people have no idea of the power of guns. We always land unarmed. We are within sound of the waterfall. When will this fertile valley resound with the church-going bell? The Lord, the Good Lord, grant that our entrance may be the precursor to that happy time.

DAVID LIVINGSTONE

Journal A.3

Voyages of MaRobert, *alias* Asthmatic, under command of Dr L.

40	[miles]	1. Expedition Is[lan]d to Shupanga.
40		2. Shupanga to Expedition Isd.
40		3. Expedition Isd to Shupanga.
40		4. Shupanga to Expedition Isd—40.
		5. Expedition Isd to Shupanga, 40; Senna 50;
240	miles.	and Tette 140. 240.
230	,,	6. Tette to Senna—Shupanga—Kongone.
		7. Kongone — Shupanga — Shiré — Senna and
290	,,	Tette.
60	,,	8. Tette—Kebrabasa and back.
60	,,	9. Tette—Kebrabasa and back.
250	,,	10. Tette—Senna 130; Shiré—Mamvera 120.
250	,,	11. Mamvera—Senna 120; and Tette 130.
240	,,	12. Tette—Senna 130; Shiré 110, Chibisa's.
		13. Chibisa's—Senna 110; Shupanga—Kongone
230	,,	120; 230.
		14. Kongone—Luabo—Melambe—Shupanga—
330		Shiré—(Melane)—Senna—Tette.
2340	miles	
230	,,	15. Tette—Senna—Kongone. (Persian)
120		16. Shiré—Ruo—Chibisa's—and back to Kongone
2690	miles.	

Journal A.3

Tette, 21*st Feb*[*ruar*]*y*, 1859. Ascended Morambala on 30th Decr, 1858, and thence proceeded up the Shiré in the beginning of this year. Described in despatch No. 13. or No. 1 in volume similar to this.

12 *Jan.*, 1859. Left cataract of Mamvera and narrowly escaped wreck on a sunk rock which, on ascending, we failed to see. I was too eagerly employ[ed] in looking forward to see the nature of the obstacle, which prevented us going further up the Shiré. We battened the paddle wheel. We came down quickly. In the village above Gamba a man called out, 'Paddle! paddle! paddle! stop here!', but we wished to avoid giving the impression that we were under their authority on the river. Hills are well cultivated; there are many little fishing stages along the banks. A shed and perpendicular bank seem to be all that they require for their sitting operations, but they have baskets also with which they catch many. There are many hippopotamus traps along the banks and this animal abounds. There is a good deal of cotton yarn.

Chibisa sent two men to us but, when I put the steamer about, they were terrified and, leaping into the river, left the canoe. He lives on a high sandy ridge. I sent him and Kapuita a cloth each.

Elephants still in the same numbers as before: perpetual clouds and rain prevented us from getting observations and so we went back to Shupanga. 14th to 17th here. Engage Sr Francisco to collect notices referring to manner and customs of the people. He has got two guinea fowls with tufts of feathers on their heads.

Jany 18*th*, 1859. Leave Shupanga at 10 A.M. and sleep at Bonga's palm

19*th*. Patent log overboard at Shamoara hill wooding: choked with aquatic plants. Observed it hour by hour on morning 20th and found current 3¼ miles per hour. Common log gave $2\frac{8}{10}$.[1] In this spot the MaRobert made no headway with 60 lbs of steam. Sleep beyond Sambo.

21*st*. General current 2½. Went on last[1] till after dark, but failed in reaching Nyaruka. Every afternoon rain and wind spring up from S.W. but morning wind from N. At other times of the year it is up river. We were obliged to go back to E. bank to wood and then came over to Senna, anchoring for the first time in the inner channel close to the fort.

[1] So in the original.

22–24*th*. Repairing the paddle wheel.

Sr Ferraõ says the Banyai and Baruistas are very cleanly. The Quiteve people are very fond of anointing themselves. The Manganjas very expert in understanding any thing explained to them.

The Prazo of Chiringoma was given to his ancestor for some service performed, but the Government ordered it to be split up and two leagues only reserved for the heir.[1] The Landeens, who are real Zulus, came in and took it all from them together.

25. Leave Senna to cut wood on other side. Sleep opposite Pita. Good wind up: it helps us greatly. Sleep below Shiramba Dembe.

30. Lupata. Pick up a deserted man—or rather skeleton—and take him to his own people. His companions had been drowned and no one would take him up. He was unwilling to leave us.

1*st Feb;* 1859. Lost a day by dirt filling tubes.[2]

2*nd*. Pass Luenya easily and reach Tette at 8½ P.M.

3*rd*. Mr C. Livingstone and Baines return from Kebrabasa. Report favourably of possibility of passing. Water rose in January to 13½ feet when they set off.

6–12. Both Baines and L[3] suffer from Fever.

Small engine set to cut planks with circular saw to build a house for Sr Secard.

10 *February:* river rose to 14 feet. Fell on 12th to 12 ft. About 20th rose again to 15 feet.

A woman taken off by a large alligator which came under the bows of the vessel with her. She went down to draw water. No notice taken of it.

20*th*. Another woman taken off by an alligator last[4] night. Rae thought it was a log of wood. I told commandant about it. The Makololo say if a woman refused the advances of a man the latter has power to send an alligator to take her.

Herb found by Dr Kirk, the flower of which causes headache and, it is said, fever. Erect sugar-mill. Collect Buaze and senna leaves.

A female buffalo bred twice with a common bull at Kilimane.

Thornton went off to geologize on Monday: has been inefficient of late.

Makololo propose returning. I agreed to their request to give Mr C. L[ivingstone] to lead a party of them, but they afterwards thought that it might be construed into disobedience, for Sekeletu had given them orders to return with me.

[1] 'heir' doubtful.

[2] Apparently the boiler tubes of the *MaRobert*.

[3] Charles Livingstone.

[4] *Marginal note :* 21st.

24th Feb., 1859. Have written to Miss Whately, To Wien K.K. geographischen Gesellschaft, to New York G. and S. Society.[1]

We got a little Mongoose at Shupanga. It soon tamed and runs about the vessel with great familiarity, sleeping along Rowe's whiskers. It eats cockroaches but they cause leanness very soon, and the same effect has been observed in monkeys. This would be invaluable to fat young ladies; better than vinegar.

Caught a sawfish here five feet 3½ inches from insertion of saw to tail. They are always up here, and so is the Kinyasse or electric fish.

Thornton out geologizing at Muatize.

Sugar mill set up and tried: successful. Mr Rae putting up the turning lathe. Great want of cane again.

Measured Zambesi here, roughly pacing the base and found it 900 yds broad.

26th. Mr Rae setting up the turning lathe. Baines mending whaler. Charles photography of smiths.[2] Measured Zambesi exactly: 967 or say 960 yards from bank to bank.

27th Feby. Dr Kirk has slight aguish fits which Warburg's tincture did not cure, though tried fairly.

A good shower refreshed the earth last night. Teaching the Makololo the Lord's prayer.[3]

1st March 1859. Take coal aboard: oil for engine at present 2 fathoms per pot: usually one fathom.

Another woman taken off by an alligator. We set a hook tied to the belly of a dog: dog was either stolen or got loose by 10 P.M.

Got four kinds of water insects. One with eight eyes squeaked a little when touched: it is probably the larva of some insect.

Took a quantity of indigo and put it in a potful of water. In 36 hours it had turned the water green and smelled strongly. Took out leaves and Sininyane put in his shirt, as he was anxious to dye it blue. Hang it out occasionally in the shade to allow it to oxidize. It is now dark green.

March 3rd, 1859. Smells strongly: cloth dark green. Kanyata again brought up the subject of going back, but Masakasa and Thubamokhoro opposed it.

[1] *Following this on the next page is a marginal note :* In Owen's narrative of survey (vol. 11, p. 238) it is stated that a powerful antispasmodic was made of cockroach paste and administered in small quantities in a case of locked jaw from a cut in the foot.

[2] So in the original. It may refer to something like the scene reproduced in p. 113 of Livingstone's *Narrative*.

[3] These entries under 27th Feby, are written immediately below translation of the Creed into the dialect of the natives of Tette.

If we dedicate ourselves to God unreservedly he will make use of whatever peculiarities of constitution he has imparted for his own glory, and he will in answer to prayer give wisdom to guide. He will so guide us as to make useful.[1] O how far from that hearty devotion to God I read of in others. The Lord have mercy on me a sinner.

Thornton returned. His people not trustworthy. Thinks he understands the structure of this part of the country.

Great amount of v[enereal] disease here and several persons (natives) in chains for impurities committed—a sad world this.

5 *March*, 1859. A woman left Tette yesterday with a cargo of slaves in irons to sell to Sr Cruz for exportation to Bourbon. Francisco at Shupanga is the great receiver for Cruz.

This is carnival and it is observed chiefly as a drinking feast. Rae, Thornton and Charles ill of a little fever.

5th March. Water rose from IX to X½ feet today. The want of rain is much felt.

Teaching Makololo Lord's prayer and Creed. Prayers as usual at 9½ A.M. Augusto, a Goa man, very ill of pneumonia and Bronchitis: not expected to live. The disease was neglected.

Augusto died about 3 P.M.

Memo in letter to Admiral Sir Frederick Grey of 15th Feby, 1859:[2]

Should it so happen that a cruiser cannot call at the time appointed, but sooner or later, a bottle deposited ten feet Magnetic North of the beacon put up by Captain Berkeley on the island at the mouth of the Kongone will be looked for by us: but should no vessel have called we shall deposit a bottle in the same situation. He who has deposited the bottle to cut X on the side of the beacon facing the bottle, to prevent useless digging.

Private.

6 *March*, 1859. When employed in active travel my mind becomes inactive and the heart cold and dead: but, after remaining some time quiet, the heart revives and I become more spiritually minded. This is a mercy which I have experienced before, and when I see a matter to be duty, I go on, regardless of my feelings. I do trust that the Lord is with me though the mind is engaged in other matters than the spiritual. I want my whole life to be out and out for the Divine glory, and my earnest prayer is that God may accept what his own spirit must have implanted, the will to glorify him.

[1] So in the original.

[2] *Marginal note.*

I[1] have been more than usually drawn out in earnest prayer of late—the Expedition, the cares for my family, the fear lest B[edingfeld]'s misrepresentations of my conduct may injure the cause of Christ. The hopes that I may be permitted to open this dark land to the blessed gospel. I have cast all before my God. Good Lord, have mercy upon me. Leave me not nor forsake me. He has guided well in time past. I commit my way to him for the future. All I have received has come from Him. Will He be pleased in mercy to use me for his glory? I have prayed for this and Jesus himself said Ask and ye shall receive, and a host of statements to the same effect. There is a great deal of trifling frivolousness in not trusting in God. Not trust in Him who is truth itself—faithfulness, the same yesterday, to-day and forever. It is presumptious not to trust in him implicitly and yet this heart is sometimes fearfully guilty of distrust. I am ashamed to think of it. Aye, but he must put the trusting, loving, child-like spirit in by his grace. O Lord, I am thine truly, I am thine. Take me—do what seemeth good in thy sight with me and give me complete resignation to thy will in all things.

7–8–9 *March. Tette.* C.L. collecting birds.[2] Baines painting and working at boats. Rae making parts of turning lathe which were wanting and Dr K. packing up his plants: self writing following Despatch on Slave Trade.

River rose to 13 feet and remains stationary for last few days: the water is comparatively clear, and is probably the flood water of the Interior.[3]

9th. News came from below that the war in India still goes on, that Louis Napoleon sent a fleet to Lisboa to demand the restitution of a ship captured in slaving,[4] that a new Governor is appointed to Tette, and Tette and Senna form his jurisdiction, Quilimane being cut off.

March 10th. Requested any captain of man of war to call on us at Kongone in case of Admiral Grey being unable to assist us. Sent the above despatch by Sr Clementina.

Send off to make a shaft in the coal: Thornton evidently disinclined to geologize and has done next to nothing last three months. Gorges himself with the best of everything he can lay hold of without asking. Baines sent for four bottles of Brandy to the

[1] 6 *March, repeated in margin of new page.*

[2] Kirk notes: 'Mr Livingstone made a good collection of Birds, of which I am right glad'.

[3] *Marginal note:* Flood water.

[4] See Coupland, *Kirk on the Zambesi*, pp. 266–67.

Launch. I was obliged to speak sharply to him about it. He receives £1 a day and does next to nothing.

16th March, 1859. Bandari.

As it will be necessary for us to move from the Residencia soon, in consequence of the new Governor coming and we can no longer enjoy the good offices of Major Secard, we spent some time trying to get a house in Tette, but in vain. We shall take up our iron house and set it up in some convenient spot in or near a village.

14th March. Left directions for a branch trip to Bazizulu country and to make a detour to the East so as to come in by the Mazoe, which is near Manica. Party to consist of C. Livingstone, Baines and Thornton, to go in company with a trader of Major Secard, who knows country 'to dig a well for gold' in Mazoe River, and ascertain whether there is gold-bearing stratum.

Went up this day to near Mutoga for coal, there being very little wood in some parts of Shiré. Thornton is running in a shaft in Morongoga.

15th. Came down Bebubue:[1] water from 3 to 6 or 8 feet deep. Got aground several times (3) in coming down. It is so difficult to see the banks when looking down stream. Slept at entrance to Lupata with Sr José St Anna. He complains of Cruz spoiling all the trade except that of slaves for Bourbon. Major Secard sent a soldier after the woman who is going to sell her 20 negroes and 40 negro women to Cruz, but she is not yet caught.

16th March, 1859. Wooding at Bandari. Water 11 ft. 9 in. here: was 11 ft when we left Tette:, but yesterday was mixed with more mud than before. There must have been rain on this side of the ridge.

Sailed nearer to the Southern bank than we had ever been able to do before, and in the evening reached Shiramba. Took a latitude on a small island opposite upper end of first hill of Shiramba; 16° 52′ 36″ South.

Towards evening a large Alligator[2] made a terrible rush at us, making the water rise above his back at least four inches. When within a few yards he turned round sideways, as if to catch the paddle, and put his head above water. Rowe fired into his chest and he disappeared. He evidently thought us an animal swimming and came to pounce on it. I have seen this often. As soon as he perceives man, he dives down.

Sun very hot: gave me headache. The nights too are hot.

17 March. Wooded at Shiramba Demba.[3] Many cotton plants growing among the long grass. They had all been burned off, but

[1] Or perhaps Rebubue. [2] Actually a crocodile. [3] *Spelt* Dembe *on p. 82.*

now shoot up as vigorous as ever. I wish I saw my countrymen here. Sr Tito says that strangers may settle in this country, only the Government will resume possession of their lands if left uncultivated for ten years, and they have the option of taking them for forts or arsenals.

Arrived on bank opposite Senna about ½ an hour before sun down.

18*th March*, 1859. Wooding this morning before going over to Senna. Air at 1 A.M. 80°. A large space of river above this is actually more shallow than at low water: the hollows seem all filled up. The sand is coarser and grates more under the vessel when we touch. We have fifteen Makololo with us and take provisions for forty or fifty days.

At Senna (18*th*). Drought here, as well as at Tette. Millet nearly killed but Pennisetum will yield some.[1] Quilimane suffers equally with Senna.

A great deal of disease prevails—colds, bronchitis, diarrhoeas, fevers. Old Sr Anna very ill of Bronchitis complicated with heart disease and old empleurema. New Governor of Zambesia expected in May. To come with his brother, the Governor General of Mosambique.

Mariano's mother, on coming back to Quilimane, lost her two daughters and four female slaves. One went in to bathe and, going beyond her depth, the other tried to save her and a wave took both away. Four female slaves, trying to help them, lost their lives too. Mariano is sentenced to three years' imprisonment, to begin from time of leaving Quilimane.

Manganjas say we are the cause of their suffering from drought. We have bewitched them. As soon as we passed their corn withered. They threaten vengeance. Is the old Devil not in it again?

20*th March*, 1859. After service this morning on board, went to see Sr Anna and was glad to find him improved. It is an old complaint and he has heart disease of 20 years' standing—is 76 years old.

Went to a meeting in reference to building a church. The inhabitants contributed well. One gave 200 dollars and offered to build the walls and make the doors. Another gave 100 dollars and windows, another 180 dollars, another 10,000 tiles etc., etc.

Rain to-day after a procession yesterday with an image of Christ. They had tried twice before, and Sr Ferrão said they now meant to try another image. They do it always at New moon and full, like the rain makers.

[1] So in the original.

21*st March*, 1859. A woman was taken off by an alligator near to where we were anchored, and we saw the brute dragging her up to a quiet spot to eat her. A relative, probably her mother, stood wailing on the bank. Started at 8½ A.M. Cut wood down at Nyaruka.

A man who was our first pilot up to Senna is now here and wishes to go and live with us.

Heard that the mail from England had passed us and is gone to Tette. We go on to Shiré. Wind now set in regularly up river. Water falling.

22 *March*, 1859. Yesterday we came down the Zambesi to the Shiré and ascended to the stockade or eringa of Mariano. We wooded off the charred trees and portions of the hut therein. Lat. 17° 43′ 15″ S. Many plants found and, among the rest, columba root two feet long. A large serpent seen by Walker.

Went up past Morambala: met many canoes, but the party of Bonga is said to be breaking up, and a new headsman is proposed. Spent night opposite end of Morambala. Cut plenty of wood for swamps in front. River Shiré much higher than formerly, yet water is [?clear]:[1] shews it must come out of some large collection of water in the North as it is now higher than it was when the rains were falling here. Now that they follow the sun to the North, we have the clear water flood. We see great numbers of particles of mica in the water, glancing in the sun, but there is no mud or sand as in Zambesi. Came up with a good wind to the point called Thuka. Went ashore and visited female chief Shikandza, who is subordinate to Shikanda, a chief at some distance East. She lived in a dense jungle patch which is beautiful within. She is aged and has the biggest ring in her upper lip I have ever seen.[2] Her mouth appears through it and the lower edge is level with her chin. I told her our object, and a Senna man we have with us expatiated. Intercourse by prayer with the Deity is not considered witchcraft, so far as I can learn, though intercourse with departed spirits is.

Bought fowls for our own use at 10 for a fathom of calico. The people seem to live in abundance. They have rice growing among the native corn. Only some of the women wear the rings in the lips. The rest are good looking. We never were visited by more mosquitoes than here. Thuka.[3]

Elephants are spread over the plains now, and there has been some shooting, but no killing. Saw a cow with three calves.

[1] Word illegible.

[2] For the pelele or lip-ring see *Narrative*, pp. 114 *foll.*

[3] So in the original. The meaning is obscure.

People engaged in fishing. They seem to abound, as they do at this season in the Zambesi, the time when the clear water comes down.

24th March, 1859. Elephants abundant on the plains. Firing with Enfield rifle did not kill, but probably they will be found dead by the natives. Went ashore at Mboma: headman is called Mreta: engaged the people to cut wood for us. Return. This is the first village beyond the large island, Dambo, where many people wanted us to come and trade: promised to buy beans on our return. Other villagers rushed down to shore and called on us to trade but, our wood being nearly done, we were obliged to hurry on to an island where we found a dry tree on the right bank adjacent. Remained to cut this wood.

Saw a man with elephantiasis scrotii[1]: descended to calves of legs—a great affliction. God grant that I may use my sound constitution to his glory.

A great many darters or plotii; also small gulls and spotted king-fishers shew the fecundity of river in fish. Weather showery: clouds prevented observation for Latitude last night.

25th March, 1859. Landed last night to get a latitude. Clouds and mosquitoes rendered it difficult but we are in 16° 56′ South. Temperature lowers. The Minimum [thermometer] shows 71.5 and the water is down to 80. The Zambesi has been as high as 86°, or quite fit for a tepid bath.

We intend to pass up the Shiré beyond the falls and see where it comes from: then across over to Tette. The steamer in the mean time returns from this to Shupanga, takes up the wood of iron house and meets us there.

The people are civil when we land but, having a bad name for fines on frivolous pretexts, this may be caused by seeing that we are quite independent of them. We go to-day to the man Sinyane, who shewed some inclination to fight last time. Collisions often happen from the cowardice of one of the parties. Fear takes possession, and imagination says, 'Strike first—it's your only safety. It will save blood-shed in the end'. God grant that I may not come into collision with any one.

26th March, 1859. Found the name of the island at which we slept to be Menyemasso or open the eyes. Got a good supply of wood there and passed several villages, stopping only long enough to speak to the crowds on the banks. They seem less suspicious than they did first time. Went ashore to Nyamarusa village, and found it in a thicket which had been planted with a species of Euphorbia which from it[1] exuding a milky poisonous[2] when wounded

[1] So in the original. [2] *Marginal note*: Chagonga is chief here.

renders it dangerous to the eyes in fighting.[1] Dr K[irk] asking for poison of arrows, a man brought some on board.

A little after mid-day we came to Tingane's. An immense crowd stood on bank. We landed: walked to village and saw Tingane, a man about 60 years of age. A crowd surrounded the mat on which we sat: a man brought out an umbrella and held it over the chief, who seemed to support his own dignity, for we noticed that the women knelt down as he passed them. The women would be very good-looking but for the horrid lip ring, which quite disfigures them.

A man brought 3 Muscovy ducks for sale. After explaining, as well as the crowd would let us, our object in being sent here by the Queen, we came on board, but the people prevented Tingane from coming.

The soil very fertile. Mandioc, rice, buaze, beans and millet, etc., grow luxuriantly.

27*th March*, 1859. We slept close to Gamba and this morning were told that he had a tree near his house, but must have payment for it. Told him that he had not planted it and we would come after breakfast and take it. He replied all right. I told him that I had given him a cloth last time I was here, and he told me all the trees were mine. Now he wanted me to pay, which all would consider a gross imposition. He only laughed, as if he thought that, had his demand been complied with, it would have been a clever thing. The Portuguese yielded to pay for wood at Cassasill[2] and then were obliged to pay for water and grass.

Song-birds singing nicely as I write, after last night's rain. We have strong winds up[3] river every day: our course nearly due North —but there is a great deal of winding. No observation because all sky overcast.

After the above was written, a chief, the superior of Gamba, came with a drum beating before him, and pretended to be scolding Gamba for asking payment for wood and hiding[4] the white man. The whole country was his and the whites could go where they liked and take what wood they pleased. No subordinate could interfere with them, etc. It would have been a different story had we yielded to the demand. Nyongo is the name of the country and chief. He is young and was mightily afraid: stepped on board but soon got into the canoe again. He presented two hoes and I gave three or four yards of calico.

Current by patent log one and three quarter miles an hour—in a rapid part. Passed Islet Mola.[5]

[1] So in the original.
[2] Reading uncertain.
[3] Doubtful reading.
[4] So in the original.
[5] Indistinctly written.

In coming on through Nyanja [*word illegible*] we saw five herds of elephants. Came close to a little solitary elephant with large tusks. It charged at us before we fired, then made off with two bullets in it.

It was a dangerous animal and by our guide called ' Muito ', Impertinent. Soon after we got a cow on the bank. Dr Kirk tried the oo-ali poison on it. A quantity put in the hollow of a shell ball was fired into it, but it seemed to have but little effect. Was killed. A cow 6 ft 9: circumference of forefoot 42. Was not full grown. Had a foetus, which is preserved for home. Ears 52 inches in perpendicular diameter: blood coagulated.

27*th March*. Prayers as usual. The Makololo have festooned rigging with strips of meat. Natives seem not aware of law claiming half elephant. We do not mean to inform them but Ferrão's man may do it.

28*th March*, 1859. Slept near our wooding place at end of last long line of palmyras North side of Nyanja: could get but little wood and came on with what we had and coals[1] to Béivé island. Got a bit of lignum vitae, then came on to sleep at Nyankokue's village. Elephant foetus did not keep.

29*th March*, 1859. Went ashore this morning to see chief and get wood. Was told by a little bald consequential person to wait. I did so, but wood being met, there was no inducement to remain and allow the fire burning on board to consume all we had. The waiting was intended to impress me and others with a proper idea of the greatness of the headman, but we went off. It will prevent him playing with us next time. A little extra trouble is necessary, but others reap the benefit of our conduct. Traders have to wait many days before seeing the chiefs. At Chisindo island we cut wood in a garden and gave the woman a piece of cloth for what we spoiled, explaining that it was not payment for the wood. We want to be treated neither better or worse than they treat each other.

Near sundown reached Chibisa and visited him. Is a jolly person and laughs easily, which is always a good sign. I explained that we made observations on the stars for the purpose of laying down our paths for our friends and he must not think it witchcraft. He replied that we were not to be alarmed at the songs of his people. He lives on a bank of the river 100 feet high and nearly perpendicular. It is pretty, being in many parts covered with tropical vegetation.[2]

[1] So in the original.

[2] Professor Frank Debenham says that the site of Chibisa's village is called Chikwawa.

30th March, 1859. We find that the island opposite Chibisa's place is called Nkisi or Kisi, and is in Lat. 16° 2′ 24″ S. The Makololo sleep on it: they got beer in exchange for elephant's meat and soon shewed symptoms of inebriation, which took on various forms, as elsewhere. One tried to look especially sober and another wished for much more of the intoxicating fluid, which is called Moa and is made from maize. This plant flourishes here and the cobs are very long.

On visiting Chibisa in due form this morning, we presented a cloth and some beads, with a looking glass and a piece of brass chain. He seemed much pleased with it and went off to bring us beer and a sheep. He sat on the same mat with us and smoked his pipe. The women are different in feature from those lower down. One had very fine eyes, a good figure and face. Another was much like the Hottentots of the better sort, and very few wore more in the lip than a button. This is a decided improvement. On asking whether he would keep the Launch carefully and send men to guide us on to Nyanja, he said that he would call his old men together and consult them. On returning in the evening, he informed us that he would do all he could to help. I promised a gun and some gunpowder. He begged a little in the mean time, to shew his gratitude for victory in drinking the Muave. I gave a little and told him that we did not like the rite of ordeal, but they believe in it so firmly that when, on the following day, he gave an account of the attacks of Chisaka, he asserted his willingness to drink it if his account were not true. His phrase for success was 'vomiting it.' He states that the path due North of this is best; that from the cataract it[1] is very rocky. He has sent for a man to accompany us. None profess any knowledge beyond Kangoimba, a chief five days from this. There is one named Kalunga, West of the cataract, from which the tribe of Chibisa split in former times. Kapuita is a day's journey to the left of Mamboera cataract. They talk of the Manguru or Shuare people in the North; of Ntache, a people Westward, and Ambo, from whom hoes come. Most of the people near are Manganja who fled Northward from Chisaka's attacks, and Chibisa himself was fleeing when informed that the war was at an end by the death of Chisaka. He has been only two years in his present residence. It formerly belonged to Chazika, of the famous Dakanamoia, and the height is named Zinjambene. The mound is a long wave of sand and gravel, fifty or sixty feet high, presenting a perpendicular side to the river. It is covered with dense tropical vegetation of great beauty and luxuriance and probably was formed when the

[1] So in the original.

Lake of the Interior burst out through the present rocky path of the river beyond.

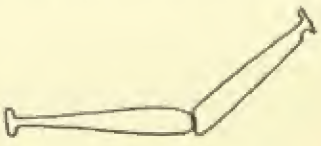
31st March, 1859. We went up this morning and found that a child had died during the night. The chief gave us some beer and went off in the direction of people beating drums and wailing. We went too and found two circles of people dancing. The evolutions were graceful and accompanied with clapping of hands. The chief's children and some young woman formed one party and older person the other. Three or four drums were beaten and medicines were burned. At first I thought the dance was to drown sorrow, as some of the younger ones smiled, but an old woman with two calabashes in her hands came and went through the dance of the younger ones on her knees, and the tears were streaming down her cheeks. Another woman, equally distressed looking, had a bunch of cotton tied on her head, and she came through the younger band with a bunch of arrows and a bow. The points of the arrows were all removed. She became very much excited and was led away by a decent matronly woman, the bow and arrows being removed from her hand. The old woman then came to the other band of dancers and knelt down, rolling herself in the dust; but one of the women lifted her up and led her away again. We saw the other woman carry the mother of the child away in a faint, and she lay for some time fainted for sorrow. Poor things, all is dreary in the future to them.

Dr Kirk got the poison, Kombe, which they use for their arrows. They told us of another, Kalabirimako. The first is seen in abundance about the river. It is a climber and has pods about 14 in. long, united end to end.[1] A very large species of cossus runs up the trees. The leaves are 8 or 10 inches in diameter.

Chibisa gave an account of the attacks by Chisaka's people. He received them as friends, but they loaded their guns and began to fire upon the people, then took all the women and children captive. He followed and fired or shot his arrows even among the captives and killed many of Chisaka's people. Again he was attacked and beat his enemies off. He stated that his daughter Gobudu is now a slave in the house of the priest at Tette. I intend to redeem her for him.

He says we have passed the barrier of bad tribes when we came

[1] *Livingstone gives a marginal illustration,*



beyond Tingane, and where we are going all are civil and will run to see us like children, throwing down their hoes in astonishment. They have no cotton and clothe themselves with the bark of trees beaten into a kind of cloth like that of the South Sea islanders.

April 2nd, 1859. We are still waiting the arrival of the men sent by Chibisa to inform Mankokue of our going to the North. It seems that this man has said that there is a much larger ship coming and that we now come in driblets but will soon appear in much greater force to take the country from them. On speaking to Chibisa this morning he admitted that he had cause for dissatesfiction in the delay, but he had sent to the neighbouring chiefs to influence his own people who might blame him afterwards, had he not done so and difficulties had arisen.

It is believed that, were he not powerful, the chiefs who have prevented traders going up and down the river, would, as soon as we depart, unite to destroy him: but they fear him. He seems to have a full persuasion in his own prerogative, says it was communicated to him by his father, so that, when he speaks, people fear him. He spoke of it as one would do of a fact in natural history and he makes no effort to support his dignity as those do who have no such belief. He sits with us on the same mat, drinks with us, though he does not like coffee. He says his people will return to-day and he will send us on, whether his neighbour will or not. His people have many children and seem fond of them. His son, Makapena, is a fine youth. If we get Gobudu from the priest, we may get Makapena to educate also. At present they do not know us sufficiently to allow him to come, though the father says he is willing he should do so.

April 3rd, 1859. Prayers, at which Chibisa attended. We then went up to his village and sat some time with him. He informed us that we should go tomorrow with one of his people as a guide: says that another tribe of Manganja had taken ten of his people and he meant to attack them. He wished our assistance but this we declined *in toto*. He says also that there is a tribe fighting with guns where we are going, but they will be afraid of us, though not afraid of black people.

It felt decidedly cold this morning, thermometer being down to 71° and a steam rising from the water which is 81°—or 10° higher. There is a blue haze like a small quantity of smoke on the hills, a sure sign of the approach of winter.

4th April, 1859. Left the steamer at Chibisa's in charge of Walker and Rowe and proceeded Northwards towards an opening in the range of hills there, with a guide furnished by Chibisa.

Went along bank of Sinje R. coming out of the valley to flow into Shiré. The grass high and wet with dew but temperature pleasant. Guide thought we wanted to go to the Lake Manguru which 'is bitter or salt and has better fish'.[1] In this belief he led us round to the East among high hills in order to proceed in the direction of the sea. We attained an altitude of at least 2000 ft and, after wandering some hours, [he] brought us round to where we came from near the entrance to the valley.

In the Afternoon we took a N.W. course, in spite of the guide, and slept at a village in the line of the valley. People offered us nothing: seemed much afraid. They neither gave or sold. This may have arisen from Chibisa's people taking whatever they please over here. Very early in the morning a man, apparently mad from hemp smoking, commenced singing and dancing and continued it till we left in the morning. There is a considerable cultivation among the hills, though they are very stony, and the grain grows well. This is the case in Judea[2] too, but there the country is torrid. Here, though very stony, the rocks seldom appear among the high grass and the valleys yield grass 8 or 9 ft high. There are bamboos of the two varieties, one hollow and the other solid.

5th April, 1859. On leaving this morning the village of the mad musician we crossed the Shashua Rr and then the Nazundo, 3 yds wide. Dr Kirk found the Podostemon, an aquatic plant, in it. This is known as an Indian plant chiefly. Beyond this rivulet we crossed the Mokubula and went winding up this, or a branch of it, till we came to the village Sekwere where, on taking bearings of the sun at setting, we found our compasses had changed about 30° degrees = from 16° W to 15° E.

6th April. Leave village of Sekwere and pass on to the N.N.E. We are among hills or rather on a mountain range, several of the parts of which run N.W. but others N. and S. We crossed over several hills and then descended to a large plain fringed with mountains. In this plain the Shiré flows. We descended to the village of Tette[3] near cataract of Matiti and slept on the banks of Shiré. Found the people weaving a web about 10 feet long and four broad. Three of the men so employed had a different physiognomy from the rest and are probably from runaway slaves of Mosambique. One had an enormous mass of hair plaited all to one side. Most have the hair drawn up into spikes tied round with inner bark of a tree, and a few had regular pig tails. One had his tail twisted up like a serpent. There is no recognised fashion in the

[1] Apparently the ocean. [2] So apparently in the original.
[3] Not of course the Portuguese town on the Zambezi.

head-dress, but the men shew much more conceit than the women. The latter have it generally short, but all wear the really hideous lip ugliment,[1] for ornament it assuredly is not. The people are generally tat[t]ooed in various fashions over body and face. The commonest form is in lines crossing each other so as to form stars. They have few other ornaments. They are the first I have met who did not feel it a duty to entertain strangers: all they bring is for sale. We got abundance of meal at Tette. The chief a very greedy trader: tried, as usual in African politics, to prevent our going further by stating there was no population farther up the river and the falls were ten days distant. We resolved to go and, on starting, two men volunteered to go, but led us on the 7th[2] three miles up to a cataract called Mikango. It is much more formidable than Marumbua. It is one mile above a river called Mokurumadzi, which comes in from the opposite or right bank from the Marave country. As we were travelling without path, the country near the river was excessively rough, being cut up by numerous rivulets. We found on taking Lat[itude] that we had made but five miles, though we were going nearly North. This is the Minima[3] country. We slept about one mile below a broken range which crosses the Shiré and forms the fall of Pampatamanga.[4] The hill on left bank is called Passorire.

By our sleeping place we had a bees' hive which had seven combs outside of the baobab branch in which it was situated. When the swarm is very numerous they do this. Dr Kirk fired a ball through it and honey dropped out of it, as a similar one did out of Jonathan's staff. They are very likely to do the same when the hole in the nest in Judea[5] is too small for them.

8th April, 1859. We were spied at dawn by a party of Kavuma's people who had heard the firing. On starting in the morning they came up to us and we got three of them as guides instead of those of Tette who, after trying to turn us back by false reports, had agreed to go on still farther. Shiré winds round to Eastward after passing the hill Passorire. We passed the villages Utale and Kavuma: people generally afraid that we are a marauding party come to attack them. On explaining the nature of the book of God this morning, the interpreter ran into 'If the whole of this river were planted with cotton for English, the book says we should all be happy.' We have very miserable interpreters. We remain here

[1] A Livingstonian coinage that Lewis Carroll might have used had he known it.
[2] *Marginal note*: 7 April.
[3] Minima, *marginal note correcting* Midima *in the body of the text.*
[4] *The name repeated in the margin.*
[5] So in the original.

to-day (9th)[1] to purchase provisions, but the son of the head woman interferes so much we must get on. He prevented others selling and, when we wanted to buy from him, he would not take reddish cloth because that colour could be worn only by the chief of the country. His mother, a very managing woman, took red cloth. We find name of village to be Momaela. Ob[serve]d Lat., [?α] triangularis Austr. 15. 36.

The guide, Balebandela, an obliging but half-witted fellow, went forward to tell Kavuma we were coming. When he returned he was scolded by his companions for having readily accepted the payment offered and forcing them to do the same: told him he took too much upon himself. This made him leave without saying a word. We dismissed the scolders too and in the morning of the 10th[2] went on towards Kavuma vil[lage]. Head woman's son came along, bearing himself very impudently but saying nothing. Chibisa's man was ill (so he said) but ate constantly. He now pretended that we were forcing him along and our discarded guides tried to persuade him to return with them. They called out that he was seized by the villagers[3] who blamed him for bring[ing] us here. He always sided with them and used various means to turn us back, and they meant to kill him. We got him up and marched him along with us, as he was always raising difficulties and seemed anxious to get us to turn. Our course to the vil[lage] led back a little but to the banks of the Shiré, on which was situated among lofty trees and the universal Euphorbia the village Moambura.

10th April, 1859. Kavuma was very much afraid of us. Did not come for some time, but on our threatening to go away, he made his appearance, but sat down at a distance of about 20 yards. Gave him the bit of turkey red refused by his son. Old managing woman made her appearance as soon as we did, but having told Kavuma about her son, he did not shew himself and she did not wish to be recognized.

People either do not know whence the Shiré comes or deny their knowledge : probably the canoe men know better. All this part is so rapid that but few canoes are found. Here the people may be termed mountaineers rather than river people.

At Momaela we found another species of white ant. He is larger and fiercer than the common and is a large brown-headed biting ruffian.

The smut of grasses and of native corn is sometimes used as a relish by the people.

[1] *Marginal note :* 9 April.

[2] *Marginal note :* 10th.

[3] who . . . back, *added in margin.*

People have batatas, sugar cane and Manioc, but drought has prevented their coming to Maturity. Kavuma said if it had not been for the drought he and his people would all have come about us and sat and drank beer with us. They were scattered by hunger or, as he said, by 'the sun'. People are busy planting maize which, coming to maturity about October, relieves them though the corn fails.

Kavuma told us that a chief named Sangane in the North has oxen. He repelled an invasion of the Matabele of Mpakane. Shireka is a country of iron.

Jão did better as an interpreter here, for he gave all I said with seriousness: generally he runs off into the cotton trade and tries to sum up all by a laugh.

11*th April*, 1859. Left Moambura and returned a few miles to a village where the headman hoped we would sit down and drink beer with him. He had decoyed us thither but we went on and came to the Shiré by going Northwards. Guides from Kavuma tried to get us to enter another village, but we wished to make a march while it was yet cool and, passing three villages, the guides, who had meant to detain us there, gave us up in disgust[1] as impracticable, and returned. Each village is surrounded by a stockade of growing Euphorbias. The branches are small and round, like rushes, easily broken and exude a milky juice instantly. It runs down to the ground, it is in so much abundance. The dark shade the stockade gives prevents one outside from easily seeing within, but those inside have a good view of those on the exterior. If arrows are employed the milky juice, dropping from the broken branches, would endanger the eyes of the invaders.

11*th*[2] *April*, 1859. We proceeded through a sort of gorge with the Shiré on our left and after 3 miles came to a cataract at least 100 feet high and half a mile long. The river makes a bend and comes from N.W. instead of from N.N.E. Spray rises high over it. See rude Egyptian or Arab locks made by the people. Also an implement used for taming any slave who, being recently sold, is troublesome. It is a piece of wood four or five inches thick, 6 or 7 feet long, forked at one end. The neck is inserted in the fork and another slave carries the free end. At night, when tied by the other end to a tree, the slave is helpless.[3] Kavumo justified the chiefs selling people by saying only criminals and thieves or persons committing adultery are sold.

[1] in disgust, *marginal addition.* [2] ? 12th.

[3] In the margin Livingstone essays a rude sketch of this goree or slave-stick, for which see his *Narrative*, p. 125.

On passing the cataract we came to a village and were informed that a stream that enters the river from the left bank is called Pachisi; the cataract itself Banimiseko or Panoreba. Above [the] cataract the river runs very rapidly in a channel only 30 yards wide and not depressed much below the banks. It is water power without dams for any number of mills.

We ascended until we came to a stream which we could not cross. It is called Langue. We went along it for some distance without [a] path, then turned westwards till we got a path. Met a man with a hoe over his shoulder, but he would [not] go[1] with us. At last, after wandering even back Southwards, we came to a village Matora[2] of Masimbi, Manguru people. Engaged a man to shew us Dzomba. Headman so much afraid of us he would hardly speak. Gave us mats to sleep on. Cross Langue and come to village Matora. Guides engaged to shew us Dzomba.[3] Came with us far enough only to clear the spur of Michiru mountain and pointed to Dzomba in the distance. This was only one mile instead of 20. They turned. Near their village saw a large white cloud resting over a waterfall in the Shiré, but no path to it, and, hoping to examine it when we returned, we passed on. Could not get its name.

In the evening came to Mafundata valley and had Zomba bearing 96° Magnetic or 80° true. We met women in numbers coming with baskets of sand impregnated with salt. They simply went out of our way without running, as most hitherto had done, and knelt down till we passed. We have a high mountain in the North of us with half of its height lost therein. Zomba has perpendicular sides on the west. We slept at Tambala village.

Women have a curious treble tone of voice when they address strangers. We met two from countries North of us—rounder faces. One, a chatty person, laughed at the idea of being asked the name of a mountain: ' Do you ask that of a woman? ' but answered us well.

13*th April*, 1859. Very cold at Tambala vil[lage] in the morning. Slave traders of the Bajana passed this morning. They did not wish to see us. Wander in the plains by going N. to the Shiré. Found a large marsh which obliged us to turn. We heard the rush of its waters about a mile off and a cloud rested along its course, which seemed to come from the North of Dzomba. We wandered

[1] 11th April, 1859, *marginal note.*

[2] Makomatiti, *1st reading cancelled. The passage in the text,* Matoro . . . Dzomba *is a marginal addition.*

[3] April 12th, *marginal note.*

all day on the plain and in the evening got to Moneno's village, a civil man, deformed by leprosy, which seems common. People come and sell foods readily.

Took us to Masala's, a jolly beer bibber but whose countenance is not preposs[ess]ing. His village, embosomed in trees, was rather a neat one. He persuaded us to remain over the day with him. Promised to send for a goat and beer, but gave us neither. He had a pistol of primitive form, made by the people West of the Shiré. It is simply a tube of strong iron, the latter part of which was flattened and welded; then a hole made in it. He uses it only when a person dies, to make a noise and shew his grief. Did not know that balls could be thrown by it.

A person in a red cloak came and Masala pretended that this was the chief of the whole valley, that his name was ' Shiré '. Stories had been circulated that we were to be attacked, and this man had come to extract what he could from us by the influence of fear. We refused to be coerced in this way. Then he sat in his dignity till it was dark and afterwards kept up a-drumming and singing of the war song all night at two villages adjacent. We heard that the island in Shirua or Chirua is called by that same name.

The valley was most extensively cultivated with sorghum and cotton. We travelled through miles of corn over our heads. People must export their cotton, as few men are clothed with it, though so much is grown.

15*th April*, 1859. Nchedze mountain appears in the North. Zomba covered with clouds. Hear that there is a tide on Chirua or Shirua, and people catch fish when it retires. It must be the effect of winds blowing the water up to the North. We heard afterwards that this is the case.

A party of Bajana slave traders, being in front of us, had persuaded the villagers to mislead us, so that we should not see their traffic. We crossed a rivulet called Motambo, a branch of Chintipe R., which drains the valley and flows North into Shiré. At Komosito's village we were told that no one went through the pass which led up to the plateau on which Zomba stands, on account of a chief in [the] next village having been killed by Muave. We turned Southwards to another pass, a very steep one, the ascent covered with bamboos. Saw an acacia like the A. horrida of the Cape, near the top.

On emerging over the brow of the plateau a magnificent mountainous country opened to the view. We had at this step got to 3,000 feet and Zomba must be 3,000 more. A lofty range stretches away on the East of mountains, having very perpendicular cliffs, and the valley into which the rivers run to the East seems a goodly

one, and so does the Shiré valley behind; and away to the North-East there is a plain among the hills of large extent, and in it a white patch said by our guides to be the Nyanga Shirua. This was our first view of the Lake.

Arrived at Muata Manga's village. Chief said to have fled or hid himself. One man came over the hill by the route they said was not to be crossed, and raised the alarm, while the others had misled us, yet demanded payment. All are very suspicious. We threatened to go on if the chief did not appear. He brought a long-haired goat as a present: was very old and, according to Sininyane, was as wrinkled as the posterior of an elephant. He complained that Chisunze, who had guns, attacked them and took captives. Hear that Shiré does not come out of Shirua, but no one knows its source. Mukanda is [the] name of Muata Manga's rivulet. His village is in a grove of Indian fig trees. Country adjacent exactly like Londa in vegetation, etc.

16*th April*, 1859. Leave Muata Manga: pass R. Chimbondo (3 yds). River Chimbondo flowing rapidly S. People plant much (*word illegible*) and work in iron. Not so much tattooing as those of the Shiré valley. Many without lip rings. Reach Chisunze's village. It is large and, like the others, shaded with trees with yams festooning their branches. Ngugu, the chief, kept out of our way for some time, to learn all he could from our guides; then came to hear the same in public. He came with a servant bearing two baskets of cotton, as if he had been in the act of spinning and roving it; and this is his usual employment. He is alarmed at the sight of us.

17*th April*, 1859. Cross Manchoka Rt. Namishonga running S. After 7 miles came to village Matude, then cross Misango, then Namawawe, 4 yds wide, and deep: course S.E. into Lake. Then Umbidi Rr. Entered a village of Zomba-a-Mojan: treated us rather scurvily, ordering the people not to tell us anything. Called out loudly, Futiga! Futiga—' Shut up! Shut up! ' etc.

18*th April*, 1859. Reach Lake Shirua.

For continuation see small note book.[1]

26 *May*, 1859. We have been waiting at the Kongone, Melambe and Luabo mouths of the river ever since the 18th for a man-of-war with salt provisions but, not appearing,[2] we deposited a bottle containing an appointment with a Captain who has been directed by a letter sent to Quilimane to search for it and meet us, or the

[1] Unfortunately nothing seems to be known of this small note book, or its present whereabouts.

[2] So in the original.

Quarter master, on 30th July. On leaving this morning the Kongone, we found the water too low to pass between the island and Kongone into Nyangalue canal. Waited an hour: some water-bucks crossed in front of us, swimming ¼ mile, and a male wounded some days ago by Dr K[irk] was killed by him now. It was sick and unwilling to take the water with the females.

We are cutting a store of wood to take us to Shupanga, there being no wood between Luabo and Shupanga. The tides here and at Kongone are peculiar and rise only 12 feet[1] at highest, then continue to rise every morning for several days, as if uninfluenced by the moon. About four feet rise and fall daily now! Luabo Mouth about three miles wide: the island 1½ mile from where we cut wood. Leave by the afternoon tide.

27 *May*, 1859. Come up from the opening to the Timbue or Parker's Muselo to-day to an island beyond Expedition island. We are well laden with Mangrove wood. Passed a flock of flamingoes near the mouth of the Doto: they are always there and are wild. Many white Ibises walk about the sand banks, they come here not to breed but to pass the winter. The geese soon lay their eggs: saw two young ones at Melambe.

We got many—perhaps fifty—eggs of Pelicans at Kongone island and, being disturbed, they laid some on the sands: we got gulls' eggs too there.

This evening we came to several Marabous, solemn, stately but ugly birds: they, however, have very fine tail feathers. The water has fallen but little. The big channels have been widened by greater flow of water and we can go in much straighter lines than before. The Luabo is becoming populated again. In passing along part of the Kongone canal we saw many bubbles of gas coming up in a stream from the decaying vegetation at the bottom.

We have fogs in the morning now, the air being cooler than the water.

The Makololo are eager to go to Nyinyesi or wherever else I may wish to go. This has not been by any means employed by me, for they asked several times if I would go there and I gave very cautious answers and never spoke positively. Great hunger prevails at Tette and will do so for some months, so it will be a benefit to them to be taken where they will find abundance of food. Their willingness I look upon as the effect of the influence of the gracious spirit on their minds, and I hope it is a pledge that he will bless me in opening that country too and O may it be for the promotion of the Divine glory!

[1] So in the original.

In returning from the Luabo without seeing a man of war it is probable that my letter may have been detained too long at Kilimane and that the vessel of which we heard at Melambe was the Lynx returning from the Cape after her Mosambique voyage. We expect to hear to-morrow at Mazaro if there is a mail for us by her.

28 *May*, 1859. Off as soon as we could see the bank near which we slept. A dense fog. When the air comes below 70° and the water is 80° or 90° above it, then we have fogs with a cold wind from the Interior. Steamed hard all day and about an hour after dark we came to Maruru, the house or Luane of Azevedo. We stopped long enough only to get some limes of some trees which must have been planted near a house. An orange tree stands near. We got many limes. Hornets had taken possession and stung Dr K[irk]: brought on a little fever. It is a tremendously powerful poison. A hive of bees in a gigantic fig tree had been persecuted by various passengers [and] are now quite savage and stung us without provocation. The long grass kills out trees unless they are tended till they can by their shade keep their trunks clear of grass. Sand martins and Bee-eaters building in holes in the houses. Pelicans fishing and spoon-bills stalking about while an alligator or two slide off into the water and the hippopotami take a long gaze at us while in the distance, but lie quiet at the bottom when we come near.

Two caps of canvas for the headman of the Makololo—very much pleased with them.

29*th May*, 1859. A[1] Maruru—great preparations making for the Governor General, the first that ever visited the Province: is to come across to Azevedo's place on the Luabo, probably to select a site for the new village; then come up here and remain three days. 3 at Shupanga, 6 at Senna, 8 at Tette. Then return the same way he came.

30*th May*. Came to Shupanga and took the wood of the iron house on board. Governor General is not coming after all the fine preparations made. Sr Vienna says that women who become jealous of their husbands often kill the negro women who were with them. They are put out of the way. The wife of Cruz who was lately drowned had killed about fifty negresses. When Joquim is enraged with his wives he shoots or maims them. A boy or girl was shewn us part of whose mouth and ear was cut off; and other mutilations are effected, no one finding fault.

Old Sr Anna is dead—died soon after we left: is reported to have been often guilty of extravagances: had buboes: died in debt

[1] ? At.

but his books shewed none. He had not put down what he owed. Poor old man! The amount of venereal is frightful: scarcely one is free from a taint.

Vienna calls money earned in slave-trading 'Devil's money:' It always went off from him and left him worse than he was before. No blessing seemed in it.

Sent a present to Manikuso, the chief of the Landeens, who are true Zulus, of the same family as those of Natal and Mosilikatze.

1st June, 1859. Slept last night a little south of Bororo point in a rapid current. In dipping water with a tub to wash his trowsers Matengo was drawn under the paddle wheel and, but for his catching the rudder behind, he would certainly have been drowned, as some time must have elapsed before the boat could have overtaken him.

I have written to Lords Clarendon and Palmerston, Bishop of Oxford, Miss Coutts, Mr Venn, Lord Kinnaird, Mr James Wilson, Oswell, Colonel Steele, Dr Newton of Philadelphia, John in Lanark, Mr B. Braithwaite, Dr Andrew Smith, the Admiral F. Grey, Sir Roderick Murchison, Captain Washington, Mr Maclean, Prof. Owen, Major Vardon, Mrs L., and Viscount Goderich.[1]

1st June, 1859. Slept at Shamo, lately the stockade of Mariano. Got plenty of wood, the remains of stockade. It contains more plants than an equal space anywhere else. Is a sort of island covered with trees in a marsh, with level lands all about. There are other islands of this kind about. Some of the rebels came to us while cutting wood. Employed them to gather Buaze seed. The Portuguese are about to make a descent upon them again, probably by way of asserting their right to Morambala. They came only to the foot of a low range of hills five or six miles south of the mountain on the occasion of taking the stockade.

2nd June, 1859. Passed night a little south of southern end of Morambala. Vessel steams heavily on account of our having the wood of iron house on her.

3 *June*. A breeze helped us along and we came about half way between Morambala and the village of Mozima to anchor. Two men brought off neatly made bags having pockets, all made of leaves of the Palmyra for ½ a fathom.[2] Many people are met going up and down river with and for dried fish. Wounded but did not get an elephant: saw two skeletons, probably of those we formerly wounded.

[1] Frederick John Robinson, Viscount Goderich and later first Earl of Ripon (1782–1859).

[2] *I.e.* of trade calico.

Many people employed in clearing patches along the banks to cultivate maize, tobacco and pumpkins. There are but few women among them. Wounded another elephant with a Jacob's shell but it did not die. They run into the large marshy places for security and they are probably hunted often.

Walker complained on the 2nd of the Kroomen inventing horrid lies to annoy him. Some wood was required to be split in order to get up steam and the head Krooman said it could not be done till they had got breakfast. Ordered them to do it at once. This arises from Bedingfeld's having told them to demand 'proper time for meals'. Resolve to send them all on board the[1] first man of war we meet. They are not worth their food. Would have been better had they not been tampered with.

We told the men at work in the fields that we went on to buy rice at Mboma's vil[lage] and would return soon to buy for[2] them. Our object in coming up the Shiré at present is to buy rice, there being a great scarcity of everything at Tette.[3] I bought 30 panjas of Mexoeira from Mr Vienna at a fathom per panja—this is chiefly for the Makololo. With country people entirely we could do with country produce, but the Kroomen prefer man of war's allowance of beef, biscuit, tea, sugar etc.

5th June, 1859. We remain at village of Mboma under Malane mountain over Sunday. Copy Lord's prayer in the dialects of Senna and Tette for Sir George Grey. People of village have plenty of rice but cannot sell it except at night on account of Manganja thinking that we will not buy their fowls: if the rice is bought they scold them. They are people from the south here and not really Manganja: they emigrated from the Cuama and are Bacuama.

6th June. Some of the people imposed on us by putting some cleaned rice on the top of that in the husk or on the corn and selling it as clean rice. This deception is not often practised.

Kroomen refused the beans served out to them for dinner.

In the evening we came upon a party of people cutting up one of our elephants. They had cut off the head of the animal, took out the tusks and left the body, which is usually the object of most attraction for them, untouched. The smell attracted our attention in passing at dark and we sheered in and took possession of their canoes till they brought the tusks after we had seen the bullet marks in the skull. Many must have been found by the people of the valley, for our bullets have great penetration.

[1] 4th June, *marginal note*. [2] ? from.

[3] *Marginal note*: Found Mboma's vil. to be in 16° 56′ 30″ by the Alt of A Crucis.

After leaving the village in morning got a latitude 100° 10–. Error 1′ 20—lat. 17° 00′ 21″ S. Place, a wooding station beyond Skikandakazi. Saw Manguru or Clarendon Mountain and South end of Milange till sunset.

7th June, 1859. The people brought the two tusks of the Elephant this morning and I gave them three pieces of cloth in case of anything having been stolen from them by the Makololo and told them we wished them to understand that we took nothing but our own property. After some time one of them asked if we did not give one tusk and tried to make a virtue of having done what we forced them to do. Told them it was not a custom of the English but of the Portuguese; that they had got many animals shot by us and were welcome: only those we killed and found were ours entirely. We parted good friends. Tusks about fifty pounds each. Chief's name Masenda. It would seem as if the Portuguese introduced the law through fear. Elephant's forefoot 56 inches. Hind foot 54 inches. Girth 18 feet.[1]

Secured molars[2] for British Museum. Kroomen took their beans and gave Coffee a good thrashing for sending them back a second time. They are all Fishmen except one, not genuine Kroomen: a very bad lot. Thanks to B, they [are] much worse than they otherwise would have been.

8th June, 1859. Came down and slept at stockade of Shamo or Mariano. Much dew in morning. Cut a good stock of wood from burned trees of stockade. Came round and slept at an island. 17° 40′ ob[serve]d for time.

Before dark a party of rebels came down and saluted us. They have returned to their former haunts, and this is probably the reason for sending Sr Alves down again. All Portuguese have an idea that the people must be well thrashed before they will respect the whites.

Slept at end of island above Sambo, Miano oa Mambo's place, and found it 8′ 30″ west of Shamo.

9th June. Reached Senna at night but, it being dark, we could not ascend the canal quite to the village. We anchored a mile below at Sr Ferrão's house, 23′ 30″ W of Shamo, which gave a true bearing of Morambala at 5° East. Senna is therefore about 24′ West of Morambala.

10th. Received despatches from Lord Malmesbury stating that H.M. Government had read with great interest my letter of [?]th September last and had communicated the substance of it to the Government of Portugal. Also a Royal decree grant-

[1] Tables of compass bearings are omitted here. [2] Of the elephant.

ing lands to a German emigration company and thanks of the Governor General of Mosambique to Dr Kirk and to Major Secard.

The despatches of No. 1, 2, 3, of January 3rd. Others are on their way of older date.

Hear that the cholera is raging at Mosambique: 4,000 persons died, chiefly blacks. First time it has visited South Africa. Will be very severe in this time of hunger.

June 12th, 1859. At Senna. Divine service in cabin. Delivered my despatches about Shirwa to Sr Ferrão yesterday to be sent to Quilimane.

13th June, 1859. Left Senna this morning at 6 A.M. Had breeze which helped us. Without it we cannot get on. The banks are forming now and the change from high to low water causes them to assume different forms from what we are used to. They are straight and parallel with the course of the river while the usual bank is at an acute angle with it.

Heard Mr Ferrão tell of a time of great hunger in which a herd of lions, maned and unmaned together to the number of 20, hunted in company. He saw them in the village catch a sow and walk off with it. 8 head of cattle were killed at one time and many natives. Once [a] few of them (?had) been shot the others left this part of the country.

Mr Ferrão's father came to a number of ruined houses of European build and some of their descendants were musicians in the court of Shangamira. They had long hair and were of light countenance. He thought that he was then fifteen days from the West coast. He was 20 days West of Manica.

14th June. Kept the Eastern shore and cut wood at Lat 17° 4′ 48″ where some people are building a stockade in a thicket of high trees: said that they belong to Mankokue of the Shiré. In the afternoon a violent storm of wind forced us into a bank. On getting off we were fain to cling to an island for shelter and to sleep. The hills of Lupata appear in the distance.

When in the main body of water we have no difficulty in the navigation but when we leave it then our course is in curves. In December January, February, March, April, one can run in straight lines, but after that we are forced to bend round the banks.

15th June, 1859. Made very little progress to-day in consequence of having by mistake gone too soon over to the right bank from Kebramisa. Got into a trap in which we frequently got aground and at last had to return about 3 P.M. to the part we

left in the morning. Cut wood near a village and I wrote an outline of a paper to be made up by Dr Kirk upon Fever. Most difficulty is experienced between the high and low water, for then the water continues to spread and has not arranged itself into one or two channels. The edges of the banks under water as straight.[1]

16th June, 1859. Slept at an island with Shiramba Dembe in sight, and on the 17th,[2] about eleven, came thither and, there being plenty of small dead lignum vitae trees, we remained all day to wood. A village of people who dress like Matabele near, but they did not come to us. On the 18th[3] about 10 A.M. we left Shiramba Dembe which by observations we found to be 16° 54′ 19″ S and 19′ West of Senna.

19th June, 1859. Slept last night at a clump of trees on the North bank called Shipanga, Lat. 16° 46′ 0″ and 2′ west of Shiramba Dembe. Came along in the inner channel by Morabvi, Nguengue and Nyakasenna. Found plenty of water. In the afternoon went in to the last group of Tropical Forest trees on the North before coming to Lupata where on the 20th[4] we stop for Divine Service. Cloudy: could not get observation. Five men came in a canoe from an island to sell four bags of rice. They were so tipsy that, when they stood up, all tumbled into the water. When picking up their things the youngest said, ' You say I am a child, but who are children now? ' We seldom see natives drunk. Water stands VI feet above L.W.M. Lupata.

Private,[5] *20th June*, 1859. I cannot and will not attribute any of the public attention which has been awakened to my own wisdom or ability The Great Power being my helper, I shall always say that my success is all owing to His favour. I have been the channel of the Divine Power and I pray that His gracious influences may penetrate me, so that all may turn to the advancement of His gracious reign in this fallen world.

O may the mild influences of the Eternal Spirit enter the bosoms of my children,[6] penetrate their souls and diffuse through their whole natures the everlasting Love of God in Jesus Christ. Holy, Gracious Almighty Power, I hide myself in thee through thy Beloved Son. Take my children under thy care. Purify them and fit them for thy service. Let the Harvest of the Sun of righteousness produce spring, summer and Harvest in them for thee.

[1] So the page ends, but there are no other signs of a lacuna in the MS.
[2] *Marginal note :* June 17th.
[3] *Marginal note :* June 18th.
[4] *Marginal note :* 20th June.
[5] *Repeated in the margin of the next page.*
[6] *Marginal note :* Prayers for my children.

20th June, 1859. Wooded at a place about 2 miles below Bandari, and left at 11½ A.M. Reached Island of Mosambique at dark to sleep. Dr K[irk] found a true floating sensitive plant. Got guinea fowls and geese. Rowe went out with the gun while we were wooding. Sat down and whittled at a leaf of Euphorbia, so as to get his hands covered with the milky juice; then scratched some pimples *in perineo* and came home in a terrible pain. Washing made it worse: applied oil with little effect. Irritation intense and he has sat all day in water. In evening we heard him remark to Walker, ' Catch me botanizing again, as they call it. This is the baddest mess ever I was in.' The Makololo comfort him by telling that the part will become as big as his head and will require to be sliced on the sixth day.

People have occupied the gorge of Lupata. We saw some huts: formerly there were none.

22nd June, 1859. Slept last night about 5 miles below Bonga's stockade: bought 3 sheep and a goat for 8 fathoms of calico at Chareka. Pass Bonga's stockade at about 10 A.M.

When Bedingfeld got to the Cape he declared the difficulties of the Zambesi to be ' insurmountable '. Is it going to become fashionable since the affair of the Baltic fleet for naval men to boggle at difficulties? We mean to go at them and this is what our naval heroes used to do.

23rd June, 1859. Reach Tette about mid-day, vessel steaming very heavily but a little wind enabled us to stem the pass in[1] by the rocks which she could not do last time. Found our companions all well. Baines had been heady for three weeks and made away with Expedition goods to a large amount while so affected. Asked them to put him in confinement. Thornton doing nothing: is inveterately lazy and wants good sense.

TETTE, *23rd June*, 1859

Major Tito Augusto Aracijo Secard.
Commandant of Tette.

SIR,

By a despatch dated 17 Janry last I am informed that the Govt of Her Majesty the Queen of England has directed the English Minister at the Court of Lisbon to thank the Portuguese Govt for the assistance rendered to me by the Portuguese Authorities on this River.

I am at the same time instructed to convey to you the thanks of

[1] So apparently in the original.

Her Majesty's Govt for your generous services, and I have very great satisfaction in doing so.

I am, Sir,
Your most obt Servant
DAVID LIVINGSTONE
H.B. Majesty's Consul.

Copy.
Charles Livingstone.

TETTE,[1] *23rd June*, 1859

SIR,

I shall feel obliged by your furnishing me at your convenience with a copy of a Proclamation published here during my absence against free persons of colour carrying arms in and near the Villa.

I am
Your most obt Servant
DAVID LIVINGSTONE
H.B. Majesty's Consul.

Major Secard, Commandant.

24th. Received the copy accordingly: it refers to a Licence for arms, a measure said to be intended to furnish the means to build a custom House at the Luabo.

The following was received with the following despatches and I delivered it over to Dr Kirk.

Copy[2]

Thanks of the Governor General of Mosambique to Dr Kirk of the Zambesi Expedition.

BOSCAWEN IN SIMON'S BAY,
16th Novr, 1858

SIR,

I have much pleasure in transmitting to the Lords Commissioners of the Admiralty the accompanying copy of a letter which I have received from the Gov. Gen. of Mosambique conveying [*letters illegible*][3] thanks for services rendered by Dr Kirk of the Zambesi Expedition to the Portuguese Corps of Operations on that River.

I have etc.
(signed)
FREDERICK W. GREY

To Secretary of the Admiralty.

[1] *Marginal note :* Copy, C. L.
[2] ? H. Ex's.
[3] The copy is in David Livingstone's hand.

Copy

A.S.E.L'Amiral Lord F. W. Grey
Commandant la station navale de S.M. Britique en Afrique.
Mozambique, *le* 19 *Octr*, 1858[1]

My Lord,

Le Govr de Quillemane vient d'addresser au Sécrétraire General la lettre dont j'ai l'honneur de vous envoyer la copie ajointe.

C'est pour moi une grande satisfaction que la premiere fois que j'ai l'honneur d'ecrire a V.E. soit pour lui faire parte de une fait que sera si agreable a vos genereux combien il c'est pour moi meme.

Je me crois oblige de faire connaitre a mon Govr la conduite de Dr Kirke—conduite que honore son caractere et que me donne cette occasion de montrer à de tels proceédés ma reconnaissance.

Je profiterai de la premiere occasion pour remercier le Dr Kirke des ses services en faveur des sujets de S. M. le Roi, et en attendant je crois de mon devoir exprimer a V.E. as sentiments.

J'espere que cette bonne intelligence entre les individas de l'Expedition Scientifique du Dr Livingstone e les autorities Portuguaises avec lesquelles ils se trouveront en contact ne se dementia jamais.

Je profite de cette occasion d'assurer a my Lord la haute considération

Le Gov Gen Mozambique
(signed) João Soares de Almeida

Copy.[2]
Governant de Quillemane et Rivieres de Senna.

Monsieur,

Le Docteur Anglais John Kirk un des compagnons du Dr Livingstone comme médecin e Botanique a resté à Chupanga chargé de garder une quantite des objects que Le Docteur Livingstone vient de laisser en cet endroit en attendant que ce dernier arrive de Tette ou il est allé a faire conduire de autres.

Quand je suis venu a la Rive gauche du Zambesi avec les corps d' operations le meme Dr Kirk s'est offert pour soigner les malades que j'ai laisses en ce meme et d'autres que je pourrais y envoyer a que reellement j'ai fait.

Je suis informe qu'il a traite de tous avec le plus grande soin en employant ses propres medicaments.

[1] The text of this letter is reproduced as Livingstone transcribed it.
[2] This letter is here given as it was transcribed by Livingstone.

Je considere ce service d'une de haute importance que je vous prie d'en donner connaissance a S. E. de cette Province afin qu'il le prenne en telle consideration qu'il jugera convenable.

Dieu vous Garde

Quarta du Govr de Quillemane e Rivieres de Senna au Chamo. 9eme Septre, '58.

A M. Joseph Vearie Pereira d'Almeida
Secretaire de cet Province.

Signed: CUSTADIO JOSÉ DA SILVA
Lt Colonel et Govr de Quille etc

Sunday, 26th June, 1859. Divine service up at the house. Weather feels cold.

Copy. TETTE, *26th June*, 1859
Major Secard
SIR,

In reference to the Proclamation of 10th March 1859, No.[1] I have to beg that my Makololo companions, respecting whom the Portuguese Government sent out orders in 1858, may not be included in the general population of the country and that either free licences may be granted them or that they be considered exceptions, being free foreigners on a visit to Tette. I shall be responsible that no bad use be made of the arms while in the Portuguese possessions.

I am etc.

DAVID LIVINGSTONE

27 *June*. Paid the Makololo their Shiré wages this morning, being 5 fathoms to the headmen and 3 to each of the rest.

Gave Thornton the letter copied over next leave.[2] He has been incorrigibly lazy, seems to have no taste for geology and works none. It is absolutely necessary for me to act, for he will go home without any materials and then the blame will come back on me for allowing his salary to run on. [He] came here on third of May and has done nothing since but take magnetic bearings of some heights.

Copy. TETTE, 25 *June*, 1859
Delivered on 27th June.
Mr R. Thornton.
SIR,

On our arrival here in November last I gave you in addition to my written instructions an order to proceed with the geological

[1] The number is not given. [2] So in the original.

examination of this district as a starting point and, the order not having been obeyed, I made every allowance for your suffering from prickly heat and other little illnesses. But at a subsequent period I urged on you the necessity of your making some exertion to fulfill the object of your appointment as mining geologist, and both Dr Kirk and I were of opinion that such exercise would have benefited your health. You were also informed that Major Secard was ready to send you to all the interesting geological points in the district and I gave you written orders so that there should be no excuse.

According to your own report you did as little geology as possible, though your people had orders to take you to all the coal seams already known. Seeing you disinclined to work at general geology, I set you to run a shaft into one of the coal seams to ascertain the quality at a proper distance in, which you told me was 20 or 30 feet. I visited you on the 14 March last and you were ordered to proceed with this work. You returned from it on the 3rd of May, having with the people employed accomplished only 13 feet nine inches. And, though in perfect health, you have continued idle ever since. Hearing that you were remaining here idle, I sent an order from Senna for you to go on with the geological examination of the district. This you have not attended to. I am therefore compelled, by your repeated disobedience of orders, to inform you that your salary is stopped from the third of May, the date at which you retired from one duty and declined beginning another. It is with great reluctance that I take this step but your failure to do your duty forces me, however unwilling, to do mine to H.M's Government and separate you from the Expedition.

I am etc.

DAVID LIVINGSTONE

True Copy
D.L.

29*th*. Thornton applied for two of the Makololo to accompany him to the North of the river, but they refused to go with him. He engaged two free people and Tito gave him a soldier to shew him all the interesting points in the Portuguese territory.[1]

29*th*. Thornton went off yesterday at mid-day. Told him that, should he now begin and work really, it would be under favour, but I could not stop his salary conditionally. It must be absolutely.

A strange breeze yesterday afternoon from S.E.

1*st July*, 1859: say 30 June.[2] Went over to the coal mine at

[1] A note of the wages paid to Makololo on 27 June 1859 is omitted here.
[2] *So in marginal note*. Apparently Livingstone had lost count of days.

Morongoze in 2½ hours: found that about five tons had been got out. Alum begins to shew on the side of the mine. It was 29 feet 9 in. in; the height a little over 6 feet. The men have worked much better since Thornton left them. They complain that he struck and kicked them.

The coal is said by Mr Rae to be of superior quality and is of an anthracite nature. A stratum of shale runs along it and calamites abound in it. It is probably a secondary coal and not a tertiary one or a lignite.

The country about Tette is very much parched up; everything withered. Mornings very cold.

2 *July* 1859. Weather becoming cold: therm. 52°. Water falling; is now 5½ feet above low water mark. Mr Rae a touch of his old complaint, like a cold. C.L. magnetism. Thornton off, geologising, I suppose. Dr arranging plants.

3*rd July*. Divine service at house. Dr Kirk ill of ague but not severely. J. Walker wishes to be allowed to retire on account of weakness. C.L. magnetism yesterday and day before. G. Rae making blocks for winch and shelf to hold chronometer. Baines painting.

4*th July*, 1859. Packing up in preparation for leaving: lighted on Blue book referred to in last despatch to Lord Malmesbury. It is that for 1856, and in a letter from the Viscount D'Athoguia to Sir R. Pakenham in which it is stated that they went to Mosambique. Page 280.

5 *July*, 6*th*, 7*th*.[1] Occultations at Residence. Packing up: send for coal. Padre agrees to rent his house for £5, as he hopes to get away to Goa.

Pasqoal married, as non-marriage affects his children. His children now become legitimate. Write report on Zambesi.

9*th July*, 1859. Mr Baines expressed sorrow for goods having gone astray and his willingness to pay what was missing. I told him that, knowing that the fever went to his head, I would not ask payment but desired him, if he felt it return, to tell Tito at once, and he would send a responsible person to take charge. B. said, and I believe it is true, that he did not know what he was about. I ordered him not to paint any Portuguese likenesses.

Arranged all the goods into two rooms and placed our private luggage in a room in Sr Tito's house.

Priest wants £2 per month: he tried £5 per Two months, but I refused, as he spoke clearly of £5 for all the time we needed it. Cannot get the daughter of Chibisa out of the priest's hands.

[1] *These three dates run down the margin.*

Writing Report on Zambesi navigation. C.L. taken ill with fever this afternoon. Country at Tette very dry. Thornton still out geologizing. His is a case of complete collapse. Wished to be invalided by giving Dr K. many contradictory symptoms. He has several times had hysteria, the fits of laughing and crying, rising in throat and flatus, resembling exactly that met with in females.

TETTE, *11th July*, 1859

Mr Baines.

SIR,

In leaving you again in charge of the goods of the Expedition it is necessary that I should inform you that, while disposed to overlook the fact of[1] your having given away considerable quantities of public property (by your own confession) to Generoso and others, on the ground of your head having been affected by the fever, a renewal of such conduct will at once incur the stoppage of your salary, and it will be imperative on me also to invalid you. If I find that you again go off skylarking with the Portuguese, as you did, taking the whaler with you without authority and very materially damaging the boat, or if you spend Expedition's time and materials in painting Portuguese Portraits, I shall have no option: however much I should like to favour you, I must do my duty.

It is right that I should inform you that Cap. Bedingfeld complained twice of your incompetency, saying Old Baines knows nothing about store-keeping. I never altered my conduct in the least to you in consequence, but now, having seen the [?goods][2] left to anyone who chose to steal them, and Thornton even allowed to take what he liked in your presence, I hereby caution you that, if what I have taken the trouble myself to arrange, so that you can easily examine them every day, and Sr Secard has arranged to take charge when you are ill, be[3] not properly attended to, I must perform the painful duty of separating you from the Expedition.

You are required to furnish me on my return with a series of portraits of natives for the purposes of Ethnology, giving them, if necessary, in groups, so as to shew the shapes of the heads and bodies as accurately as you can. You have not yet got their colour nor in the drawings I have seen is the native countenance depicted except by exaggeration of certain features. By care I have no doubt you will be able to make drawings which will do credit to the Expedition. Birds and animals alive are also required. I[4] gave

[1] that, *1st reading*. [2] Word dropped in passing from one page to the next.
[3] The sentence is confused but the intention is clear enough.
[4] Very indistinct in the original.

you orders verbally before leaving last time not to do more at boat building than merely shew the carpenters how to do it, as a little exercise for yourself. I now repeat that nothing is to be done in boat building at all.

DAVID LIVINGSTONE

A true copy.

No[1] rations are to be given to more than two Makololo, except in case of removal. I shall pay the two on my return. Mr Thornton's rations for four months you have already taken.

D.L.

I find from Mr Rae that while Baines made so free with the goods of the Expedition, he took very good care of his own and was both sharp and mean. Gave soap to every one that asked for it; made away with the wine of the Mess, treating the Portuguese with it, yet held back from paying more than his share; wished to make Rae pay half of his washing, Baines having 90 pieces and Rae only four. Has a piece of serge in his possession belonging to Rae, gave away some dozens of bottles to Generoso etc, so that, while I give him the benefit of the doubt as to his sanity while squandering Expedition property, not many would be so indulgent. 11th July. Left him 46 or forty seven yds of calico to buy meat.[2]

Monday, 11th July, 1859. Leave Tette and drop down river with 33 Makololo on board. Dr Kirk, Ch. Livingstone, Mr Rae in company: carry magnetic instruments and Photographic also. Ch. L. made some improvement in the dry process and secured very good pictures for the stereoscope on glass.

Passed Bonga's stockade. He is said always to shut his windows when we pass.

Tuesday, 12th July, 1859. Came to Island of Mosambique and ascended the high perpendicular rock on the right bank of which also photographs were taken. Found it to be about 500 feet above the stream. I asserted its height to be not more than 800 feet. Botelho says it is so high that snow remains on it during the whole year.

13*th*. Came through the gorge of Lupata and went inland, trying to get meat but, though traces were abundant, we found none would wait for a shot.

14*th*. Proceeded towards Moabve and slept there. 16th at

[1] This reads like a postscript to the foregoing letter.

[2] *Marginal addition :* Baines said to me, on delivering the aforesaid letter, he hoped I would let him stop and work on, though his pay was stopped.

Shiramba Dembe where also we spent Sunday. A Portuguese, Sr Ramualdo Patricio, sent us a leg of buffalo.

18*th*. At Nkuesa. 19th at Pita. Navigation very difficult on account of the channels having not yet formed properly. Men much in the water shoving her off when aground.

20*th July*, 1859. Near Senna. Slight rains and very cold. No news at Senna whatever.

25*th*. Leave Senna and proceed near to mouth of Shiré. Rains.[1]

26*th*. Spent in wooding at Shamoara, there being no other good wooding place till we get to the Mangroves.

27*th*. Fog in morning. Visit Vienna.

28*th*. Slept at difficult part by the great tree with the climbers on it and then, after a long stoppage at vill[age] of cabbages: got limes at fig tree[2] and came in to sleep in sight of Pearl's anchorage.[3]

From 10th Oct. '58 to June '59 from Tette alone 5782 Elephants' tusks went down Zambesi; the weight was 3287 Arrobas = 105,207 lbs, in round numbers. 2/3 of these were large tusks and cost 8 per cent for carriage. The cost of one canoe load when the river is full[4] is £10 (50 dollars). It is more when they are obliged to carry all overland at Mazaro.

Besides the expense great losses are often suffered by thefts. One got a whole bale of calicoes stolen this year. Another shewed me a wine cask which had been burst open and contents partially drunk. Yet they go on year after year in the same way.

We met a great many heavily laden canoes going up river with goods.

Hear from Vienna on the 27th that Cruz went to Mosambique and bribed the Judge and Governor-General. Mariano is to get his liberty in consequence. Cruz went to Bombay, then Batoum.

Found that a piece of serge belonging to Mr Rae had disappeared and was in Baines' box. He gave away the mess wine to the Portuguese whenever they called on him. I saw him once myself and then, when he had finished it, declared it had been fairly drunk at the mess table. He uniformly took precious sharp care of his own things while secretly giving away the goods of the Expedition.

[1] Doubly underlined in the original.

[2] *Marginal addition:* and a waterbuck wounded by a tiger.

[3] Here follow two pages of tables giving the depth of the Zambezi at Tette from 2nd December 1858 to 9th July 1859. They are entered in Portuguese and signed by T. A. d'A Secard. A third page gives statistics for Tette and vicinity to the following effect: Baptisms—1826, 26; 1857, 34; 1858, 64. Deaths of Christians—1856, 21; 1857, 38; 1858, 28. Marriages—1857, 1; 1858, 2.

[4] 'is full is full' in the original.

Painted the portraits of Generozo, Pascoal and Albino without authority and then, when he had quite destroyed the whaler, declared that she was none the worse—' not a whit '. On reflecting on the matter I resolved to send the following and did so by Augustius,[1] requesting Sr Secard to take charge.

SENNA, 21*st July*, 1859

Mr Thomas Baines.

SIR,

On further examination of your conduct in my absence, in order to have materials ready for a proper report to my superiors, it appears that, while making away with large quantities of public property, you took very good care of your own private property. So though, as you are aware, I was inclined to take the most lenient view of the case, and even overlook the serious breaches of trust on medical grounds, the fact I have mentioned renders it quite impossible that I should do so. I am in duty bound to report the whole of your conduct to H. Majesty's Govert and I have no doubt as to the opinion that will be formed thereupon. You will therefore consider your salary stopped and yourself[2] as separated from the Zambesi expedition from the 30th July next, and give over to the charge of Major Secard all public property and all paintings, drawings, etc, properly secured. My previous orders are cancelled.

If you wish it you may have the use of the artists materials and your usual rations after the four months' rations now in your possession are expended but I shall take the earliest opportunity my other duties allow of sending you home.

D. LIVINGSTONE

A true copy
D. Livingstone.

The failures[3] of duty which I am obliged to report against you are neglect of duty as storekeeper of the Expedition in not only leaving stores exposed to be stolen, but by your own confession giving away large quantities of them to Generoso and others, a fact which lays you open to prosecution; leaving your duties [*word illegible*] and without leave in order to skylark with certain Portuguese, in doing which you took a whaler without authority and very

[1] Dubious reading. [2] salary stopped and your, *marginal addition*.

[3] Though he had signed and attested the copy of this letter as if the official intimation were over and done with, Livingstone's troubled mind runs over into this postscript as if perturbed conscience had to be flogged into acquiescence with a distasteful course of action. The reference to ' the officer left in charge ', Charles Livingstone, is not insignificant.

seriously damaged it; wasting artists' materials in painting the Portraits of Pascoal and Albino without authority, etc., from the officer left in charge.

It is with deep regret that I have to make such a report, but I am unable to find any excuse for the serious failures of duty enumerated and must therefore perform a painful duty.

D. LIVINGSTONE

July 29th, 1859. Pass from Sindi Island to sea. Anchor in Luabo canal for tide at 1 P.M. and then go along canal to sleep at Occultation anchorage. High wind.

30th July. On walking across to the sea saw ship apparently off Luabo. She fired two guns and soon we saw two boats coming from her under sail. We hastened to cut down a tree to serve as a flag staff on the island: steamed over there and hoisted a flag on it, which was answered by a brass gun in boat. Tried to shew them the path in by a red flag carried along sand. In the evening they came through the breakers when a storm of wind beat down the surf. Found the ship to be the Persian, commander Saumarez. The officer Mr Smith who came in, after asking what we needed, went back to the ship by night and next day[1] the commander came in, bringing salt provisions and slops. Invalided Walker, Quartermaster: send away all the Kroomen to Sierra Leone and rigged out eight Makololo to supply their places. Sent Buaze—1 case and 2 barrels—to Messrs Pye, Brothers and Co, 80 Lombard St; Molars to Prof. Owen. Plants and seeds to India and Natal of buaze and Motsikiri. Showery.

1st August, 1859. Commander Saumarez, Mr Smith and midshipman Fresher left this morning at 7 A.M. Copies of Despatches, and report on navigation follow.[2]

28 *August*, 1859. Took vessel along side right bank of Kongone river in order to examine her bottom when tide retired. Made a cross of top of flag staff on island which will appear so,[3] when first bend into channel is taken by person entering.

After examination of the bottom of the vessel by all members, we were unanimously of opinion that nothing could be done to her except fitting in a new bottom, for which we have not the materials. We would have spent a fortnight or until the next full tide in mending her here, had it not been impossible. Mr Rae did not sign the following, as he will give in his own written opinion.

[1] 31st July, 1859, *marginal note*.
[2] Medical report in other volume like this: *marginal reading*.
[3] *In the margin a cross illustrates the description*.

REPORT

1st August, 1859. Beached the vessel furnished by Mr Macgregor Laird to the Zambesi Expedition, on the right bank of the Kongone Harbour and dug out the sand from beneath the middle compartment in order to examine her bottom. Found the plates, which were only one sixteenth of an inch thick at the beginning, to be fairly worn and rusted through in several places, and the whole so very thin that it is quite impossible to patch them; bolts would have nothing to hold on by: the rent would be made worse by any mending, including hammering. No other process, such as wedging or staying, can be applied. We are therefore obliged to puddle the bottom with clay in canvas bags over the holes (covered with India rubber) as the only means in our power of keeping her afloat to perform the service of taking us out of the unhealthy delta. The funnel is also full of holes.

DAVID LIVINGSTONE
JOHN KIRK M.D.
CHARLES LIVINGSTONE

2. *August*, 1859. Showery. Left Kongone, going up that river on our return. Came through the canal and got a colony of spiders on board for the cockroaches. Sleep at Pandanus vil[lage]. Observed a brown kite for the first time this season on 30th July at Kongone island.[1]

3rd August, Lay alongside and so great a tide was made that the vessel was laid dry on the bank and so sloping that many things fell off the table in the cabin. Yet here the people have planted wheat, and very fine cotton.

4th. Passed the Expedition island and anchored on the left bank a little above the island next beyond it. Makololo steer pretty well. Plenty of water for vessel. Funnel threatened to fall over. Mr Rae patched it with a band of sheet iron and bolts.

Private. Have a very strong desire to commence a system of colonization of the honest poor: I would give £2000 or £3000 for the purpose. Intend to write to my friend Young about it and authorize him to draw if the project seems feasible. The Lord remember my desire, sanctify my motives and purify all my desires.

5th August, 1859. Made very little progress to-day on account of our wood being rotten. We have no Mangroves at 10 miles from the sea. Wooded at a Lignum vitae tree 16 feet 6 in. in

[1] *The kite passage marked with two vertical lines in the margin.*

Cutting up a hippopotamus, two miles above Tete, 14 May, 1859

circumference. Came only a short distance beyond the Cabbage island. Gave off the remainder of the tobacco to the Makololo.

6th August, 1859. Went by a southern channel to cut wood. Palm trees not dry. Lignum vitae too thick for saws. Sleep and spend Sunday 7th at the difficult part with climbers on big tree. Wood very scarce.

7th. Heavy rain in afternoon: came into cabin as usual and deluge every thing.[1] Everything wet below from water coming into cabin every day from near bulkhead: cannot be stopped whatever we do. Rain 3 inches. Wrote Arrowsmith, Shaw, Young, and gave orders for £200 of goods from Mr Oundell Shaw and Co. Funnel mended.

8th. Rain again. Came up to Paul Mariano at the island of Maruru and got from him 7 or 8 pumpkins, 2 legs of waterbuck and a sucking pig and a bag of beans. He is evidently in favour with the Governor, probably by bribery.

Mungo Park's 2nd Expedition.	44 Europeans,	39	died.
Laird and Oldfields Expedition	40 „	31	„
	year 1833.		
Govt Expedition of 1841	145 „	48	„
Captn Luckey's in 1816		56	„

The above was the mortality in these different expeditions. We have escaped altogether with only a little fever. Thanks to the Almighty Governor of all things.

9th Aug. 1859. Passed Mazaro and delivered a packet of letters into the hands of the sergeant stationed there. Wind very high. Paul Mariano brought some fowls to-day and some wood to the point where we slept. Started about 1½ P.M., as men had to go about three miles for wood. He says the Governor General sent for him to ask if my maps of Luabo were true. Spend night about two miles below Vienna's of Shupanga.

August 10, 1859. Got three Palmyra trees, the cutting up of which into small pieces detained us till 1 P.M. and they steamed us for three miles or to about a mile short of Shupanga House. We cut down a tree in the evening and applied fire to a Lignum Vitae, it being too large for our saws. Bank high and marly. Large kingfisher shot to-day and ibis nigra, with three bitterns or ardeats. The latter has a comb on its middle toe to act as a small tooth comb on the head. Cotton growing wild.

12 *August*. Spent yesterday in wood cutting above Shupanga: had to use fire, Lignum vitae trees being too large for the saw.

[1] So in the original.

Slept near Bororo point and in the morning of this day made for Shamoara.

It is difficult to avoid either the appearance of or actual bitterness in speaking, writing and thinking of the way we have been served by Mr Laird. The funnel is all in holes and shews that the whole thing has been intended to last only long enough to secure him another job, as in the Niger, especially when we call to mind his pathetic exhortation, 'Don't take a gunboat.'

The priest of Tette has gone down river with an immense load of ivory. He goes to Mosambique, probably to Goa. Some of the tusks are of Chisaka and may be to[1] secure masses for the soul. They are of enormous size. The padre is rich and will probably not return to Africa.

13 *August*, 1859. At Shamoara wooding. Got a piece of Teak which is called by the Makololo Moramane. It burns well. A waterbuck and guinea fowl shot last night. We always get supplied when just run out in ways that we did not expect. Knocked a small hole in her bottom in coming in shore last night, there being rocks which did not shew above water. Put a pin in and loaded the part with clay.

14*th Aug.* Took up the clay last night as it was leaking and Mr Rae fastened down a sheet of India rubber on the holes, which are like a riddle. When one is filled up another bursts out.

Sent over to Kaia to get a man from Mr Ferrão to act as interpreter. The men saw a great many slaves whom José St Anna has invested in going up towards Senna. He requires people for Interior, as it is difficult to carry goods in with the Tette people alone. Observed an eclipse of the moon last night. It shewed[2] slow $7^{m}.02$ in Greenwich time.

August, 15th, 1859. Wooded at Shamo and at 9 A.M. proceeded up Shiré. Wooded again at rocky point and slept opposite Morambala at its middle. Very few people seen though there are several new villages below.

16*th.* 12 A.M. Find that the bridge of the boiler is broken. Iron [?flange] broken off and bricks fallen back. This is the fourth time it has been built by us. In other engines the bridge is a hollow tube filled with boiler water which prevents it burning. This is an old plan wherein bricks are used instead. We are obliged to stand a day to mend it.

C.L. killed two pythons coiled together up a tree, male and female between nine and ten feet long and 11 inches in circumference.

[1] *Date repeated marginally on new page :* 12th August, 1859.

[2] After 'shewed' a letter illegible.

17*th Aug.* Leak sprung out again. We are obliged to bale out constantly. Proceeding up river. All could be highly irrigated by canals. People have planted patches of maize, beans etc.

18*th.* As our provisions were expended and the village of Shikandakazi is greatly infested by mosquitoes and no food was brought for sale, I thought best to go on to the village where rice can be obtained, the night being clear and the moon expected to rise soon. We accordingly went on about an hour and a half, when we touched a bank and proceeded to the deep water on the left bank. Not seeing the bank distinctly we could not turn in time but stopped so that she came up gently. In leaving this a strong current rushing past a corner of the bank caught us and carried us out to midstream. The boats in tow were dragged broadside on and the middle one swamped. We threw out hen-coops, but one man floated away down calling out to us to help him and the Makololo in the other boat becoming panic struck and, though a line was thrown, did not lay hold of it.[1] We backed on to the other shore and then the boat behind was freed from the sunk one and Rowe and Hutchins went in her to the help of the man down stream. They got him about a mile down, a canoe having put off to take him. This had overturned and they were just in time to lift him in. He could not swim.

Another man, Ntoma, sank at once and never rose again. This puts a damp upon all our spirits.

We are hastening on to the village to purchase food. An elephant had been killed up here: meat drying.

18*th August*, 1859. Bridge broken down again. Reach vil(lage) Mboma.

19*th.* Having purchased provisions we left and came on slowly, Matengo stole a piece of pork. This is imitation of what he must have seen the Kroomen do. One Makololo man took some wood from a woman without leave: made him pay for it with his cloth. Reached vil(lage) with many hippopotami in front: bought some things and went on to another to sleep.

20*th.* Wood-cutting. Perpetual wood-cutting: it wears the heart out of us.

21*st. Sun.* At village of Agulansonga. Is one of Tingane's people and his land extends up to Lanjea.

We make a good deal of water both in the front and middle compartment. Tingane being a bad character and always surrounded by a host of people, we think it unsafe to leave the vessel where in any difficulty it is probable an attack would be made. It is doubtful

[1] So in the original.

whether she will float till we return. After consultations we think it best to go up to Chibisa's and defer the examination of the connexion with the Ruo till we return. Our property would be safe with Chibisa and we have there a good island to live on in case of vessel not holding together. We make a branch trip when we return up Ruo or to Shirwa and then down Ruo.

22 *August*, 1859. Reach broad part where we had a host of Ephemerae last time. We had now an immense number of Mosquitoes. Very large numbers of traps for Hippopotami are planted all along and many more people appear on the banks than we saw on our former visits. They have all cultivated patches of tobacco, maize and pumpkins. The land generally is dry, the river having fallen a foot or more. The grass is burned. We saw the Elephants at a distance only. They stood in a green marsh far from the river.

23*rd Aug.* 1859. A herd of elephants made of[f] this morning as soon as they saw us with more than usual speed. All the Ant-hills are bent up river or away from the direction of the prevailing wind from east. Many ducks and alligators on banks. Cut a palm-tree at end of the N.E. group beyond marsh and sleep at Kapande's vil[lage].[1]

24*th August*, 1859. Coming on, our wood ran down when we were near Mankokue's. We found a log of Mochaba, the toughest to split I ever met with. Nothing but running the saw half through made it yield. By means of it we got to the old woman's garden opposite the islands. Not being aware that the steam was let down by the wood being all expended, I tried to run on shore at dark. The current set her back and we were nearly upset by a tree hanging over the water, which would either have taken away the masts and funnel or sunk her. The helm put hard-a-port made her sheer out and saved us!

27*th August*, 1859. Yesterday morning Matengo threw a bird into the dirty bilge water of the boat and when reproved, commenced speaking in a contemptuous manner about us all. I explained to him that he was found fault with not for letting it fall but for throwing it willingly. He continued calling out impudently, so as to make all hear his contemptuous remarks; then when told by Rowe to furl the awning, refused. As he saw the thieving of the Kroomen without reporting it and connived at their sitting still when Walker was looking for wood by signalling to them when he came, stole a piece of pork after the Kroomen left and destroyed the

[1] One of the rough notebooks in the possession of Dr Hubert F. Wilson gives jottings covering the period August 23 to October 7, 1859.

bridge of the furnace wilfully after I had told him to be very careful of it, and even smashed the iron below it with the rake, and now seemed inclined to promote a general mutiny, I gave him a beating with a flat piece of wood about 2 inches broad and thin. He did not care for it, so I dismissed him from serving as stoker. He seems to destroy in order to get away from this work, this being the usual way servants take of getting free. Instead of saying they are tired of service, they commence destroying till the master is obliged to part with them. This I have often seen before, but felt it was degrading to be obliged to punish Matengo.

27*th Aug.* 1859. Matianyane is stoker now from this date. Large Hornbill shot last night, black Ibis to-day. Preparing to start on Monday morning.[1]

17*th Sept.*, 1859. Reached Lake Nyassa from which the Shiré emerges.

8*th October*. On coming back to ship found that leak does not let in much water unless canoes or boats come alongside and shake her: she then leaks much. Funnel, furnace, deck and bottom all became shaky simultaneously. People had behaved well to the party left in charge. Weather excessively hot: renders me for the first time in Africa useless.[2] Dr Kirk ill. Mr Rae mending funnel, but ill.

14*th Oct.* 1859. Went on 12th part way up to Murchison's cataract and yesterday reached it. Very ill with bleeding from bowels and purging. Bled all night. Got up at 1 A.M. to take Latitude. Found by Betelguese and Canopus that the Lat. is 15° 55′ S. The last cataract observed above Tambala Village, was about 15° 22′, consequently we have 15° 55′—33 miles of cataract, but through a comparatively level country. Mr Rae put up a new funnel made of copper sheeting from H.M.S. Persian. Lent a kedge and rope. Returned to our station at Dakanamoio Island. Mr Ferrão very kindly sent our former interpreter up after us with onions. 15 days in path[3] from Senna. A mail for us there *per* H.M.S. Lynx.

14*th Octr.* 1859. We have all had touches of illness. 250 or 300 miles in the hottest season of year is too much for Europeans without English food or at least Wheat flour. Weather very hot and sultry: 27° between wet and dry bulbs. Zomba at least 7000 feet by boiling point.

15*th Oct.* 1859. C.L. ill: cannot take magnetic observations. Weather very hot. A small shower last night. In cabin it has been over 100°.

[1] *Marginal note :* 29th Aug. [2] *Marginal note :* 10th Octr. [3] So in the original.

17*th Octr.* Dr K. and Mr Rae to proceed overland to Tette to bring away Thornton and Baines and materials to mend bottom of ship at Bar of Kongone.

18*th.* Delivered to Dr Kirk an order to proceed overland to Tette and examine Baines' boxes and take over all public property in his charge.

Party[1] left this morning about 10 A.M. with 29 Makololo and two guides from Chibisa's old village. He seems to have left this part permanently. Rowe has had a touch of fever. Charles is improving.

Dates Oct 15*th to* 20*th.* Have written Lords Clarendon, Kinnaird, James Wilson, Viscount Goderich, A. Turner, J. B. Horsfall, W. Taylor, Miss Coutts, Bishop of Oxford, Captain Washington, Duke of Argyll, Sir Roderick Murchison; Despatch No 4 Earl of Malmesbury, Rev. W. Venn, Rev. John Moffat, Mr Maclear, Professor Whewell, James Young, Major Vardon, Sir William Johnston, 'Times', Professor Wilson, Edinburgh; Sir George Grey, Cape; Professor Buchanan, Glasgow; Agnes L., Lord Palmerston, Dr Archer, Dr Lyon Playfair, Duke of Wellington, Honble George Denman, Mr Moffat, M.P., Captain Denman, Mr Oswell; Thomas Milne, Harley House, Halifax; Mr Fitch.

(1*st Nov.*) Earl Grey, Samuel Fletcher of Manchester, Mr Elwes of *Quarterly*, Mr Murray, Archbishop Whateley.[2]

Private thoughts.[3]

Colonization from a country such as ours ought to be one of hope, and not of despair. It ought not to be looked upon as the last and worst shift that a family can come to, but the performance of an imperative duty to our blood, our country, our religion and to human kind. As soon as children begin to be felt an encumbrance and what were properly in ancient times Old Testament blessings are no longer welcomed, the parents ought to provide for removal to parts of this wide world where every accession is an addition of strength, and every member of the household feels, in his inmost heart, the more the merrier. It is a monstrous evil that all our healthy, handy, blooming daughters of England have not a fair chance, at least, to become the centres of domestic affections. The state of Society which precludes so many of them from occupying the position which English women are so well calculated to adorn, gives rise to enormous evils in the opposite sex, evils and wrongs

[1] *Date repeated in margin of new page :* 18th Oct.

[2] *These names a marginal addition.*

[3] This private passage is undated, but probably was written before Livingstone resumed his journal on October 21st.

which we dare not even name. And national colonization is almost the only remedy. English women are in general the most beautiful in the world, and yet our national emigration has often, by selecting the female emigrants from workhouses, sent forth the ugliest huzzies in creation to be the mothers, the model mothers, of new empires. Here, as in other cases, state necessities have led to the ill-formed and ill-informed being preferred to the well-formed and well inclined honest poor, as if the worst, as well as better, qualities of mankind did not often run in the blood.

21*st October*. Rowe better. C. at Magnetism. People digging up a gryllus as food. Writing to various friends and despatches. Tonje cadja or native cotton requires to be sown annually. But when Tonje Manga is sown once, it increases and yields for three years. It begins to yield three months after sowing or when the people begin to weed their corn. Cadja is the strongest.

22*nd October*, 1859. Magnetic deflection. Wind high and not so high as we have had it lately. Missed eclipse of satellite.

24*th*. Magnetical observations all day. Will leave this to-morrow morning.

25*th*. Left Chibisa's place and came down to Ebony wooding station. Sun very hot; almost blistered face, the hot blasts coming as if from an oven.

26*th*. Walk down to lower end of Elephant marsh. See Ten herds of elephants in afternoon at once.

26*th Oct*. 1859. A thunderstorm came on which was accompanied by good sized hail. Temp. in cabin before it was 101°. Much wind followed, which obliged us to stop for night. The deep channels are all on the East of the broad ones.

27*th*. Slept at a village near Mboma or Malane. Bought a native fiddle.

28*th*. Came down to Morambala. Heavy storm drove us ashore where we held for one night.

29*th*. Wooded at Shamo and lost our goat. Sent off Rowe and Hutchins in the whaler to Senna to get [?biscuit]. Vessel leaking much.

1 *Novr*, 1859. Mr Azevedo passed us yesterday on his way down. Reports that the Captain of Lynx said we have another steamer on its way or out, of 40 horse power, and of the same draught as this: that native report says Baines is dead;[1] that Louis Napoleon had left the Empress as Regent and marched into Italy and taken

[1] As the unhappy sequel shows the Baines rumour was baseless. The tale of the new steamer may darkly foreshadow the *Pioneer*, although she did not arrive off the Kongone mouth until 31 January, 1861.

Milan, then returned to Paris, and that Queen Stephanie had died of inflamation of throat. He gave us some oranges and 2 bags of rice. C.L. shot a young waterbuck yesterday.

Buaze in flower: is like a pea flower and has a very nice scent.

4th Novr. The whaler returned on the 2nd with biscuits and 3 bags of letters and a parcel. Many newspapers.

A letter from Mrs L says we were blessed with a little daughter[1] on 16th November, 1858 at Kuruman—a fine healthy child. The Lord bless and make her his own child in heart and life.

5th Novr. 1859. Dropped down from mouth of Shiré to Shupanga forest to cut wood for long reach down to the sea.

6th. Found that the rust had accumulated on bottom in the Shiré and no sooner was it rubbed against the ground on the sands of the Zambesi than the holes were opened and on getting up in the morning we had the forehold and starboard after-hold full of water. Constant pumping out was required, so the only means of keeping her afloat was to run down to the sea and beach her. Set the men to cut wood at once.

7th. Delivered a letter for Governor to give to Captain Berkeley and went on. Placed vessel aground at Donna Mangarita's island. Fore compartment, stoke-hole and starboard after-hold full of water in morning.

8th. Went on without stoppage. Pump, which is only a small thing, used for drawing spirits and worked by hand, going almost constantly. Missed the proper channel for the canal across to Kongone and went up where we had explored with Captn Berkeley. Turned back but went into another and at dark found it closing up. Tied ship to trees fore and aft. Tide went out and mud emitted a horrid stench. At 3 A.M. tide coming in, swung vessel round, and pumped her out. Mud closed up holes and stopped leak in one place.

9th Novr. 1859. Arrived at occultation station but could not cross over into Kongone harbour on account of the swell from the sea in the way between island and main land. Wind from East very strong every day in the afternoon.

10th. Go across to right bank of Kongone harbour and beach vessel. The mere weight on sand when tide comes in makes fresh leaks. We found that there were large leaks in all the compartments and large scales come off the steel plates, leaving them, where not honey-combed, as thin as the finest tin plate and capable of being bent backwards and forwards with the hand.

Captain Gordon of H.M.S. Hermes having sent me a copy of a

[1] The Livingstones' latest born, Anna Mary.

letter he penned for Cr. Bedingfeld, I happened to be writing to him at the time of its arrival and added this postscript: 'P.S. Novr 3rd, 1859. I was actually engaged in writing the foregoing sheet when a mail arrived containing your 'copy of a letter to Cr Bedingfeld'. My object in writing was chiefly to shew that I gratefully remembered your services while with us and after our separation, and as after conduct does not blot out the pleasant recollections of your really hearty good will to the Expedition, I venture to send it and to say that nothing would delight me more than rendering some service to you or yours in return.

'A few points seem to have escaped your memory and as they might have modified your judgment in penning your letter, they may without offence be recalled. "The practicaller[1] passage", for instance, was not discovered by the Launch but by Mr Skead in your own cutter. Having been absent with him on that service, our grounding during the night prevented my being on the spot when the Launch came round from the Luawe. But I was informed, in the presence of a witness, by one who ought to have known, that the fault was his, in mistaking the proper passage across the bar and sending Bedingfeld where, in defiance of signals, made on the beach by Mr C. Livingstone, he went *broadside on!* to the breakers.

'You assert that Cr B's *proper place* was the steam Launch. You did not recollect that he was not a man of war and possibly did not know that the pointed instructions of H.M. Government, which I read to him in presence of the whole Expedition and also furnished with a copy thereof with my own hand, assigned him the place of sounding the Bar in the whalers made expressly for that service. Such instructions are paramount and, as the same authority declared that no naval officer would be allowed to interfere with Captain Duncan in his management of the Pearl, your next allegation is equally injudicious.

'You have omitted altogether the occasion of Bedingfeld's resignation and tacked it on to a matter which had no connection with it. You may have been ignorant of the instructions under which he was placed, but he was not. Had you been charged to protect Duncan as I was, I believe your ideas of obedience would have led you to perform your duty exactly as I did, though perhaps not so quietly.

'The "frivolous and ridiculous events" (reasons?) to which you deign not to allude are so for the same reasons that Botany and Geology etc are frivolous and ridiculous to the people among whom

[1] So in the original.

we travel. In the latter case, however, the ignorance is excusable. Had I added a word or two more, the case might have appeared clear; but this production of yours amply justifies the caution I exercised.

'You have constituted yourself the fourth witness to the fact of an altercation on board the Pearl after my pointed injunction to the contrary. I made no charge without evidence from credible witnesses accompanying, and am sorry to see that you imagine your mere dicta and "belief" on hearsay could subvert point blank evidence. You cannot be a witness respecting the putridity exposed to view after Bedingfeld was turned off, you being, I believe, at the time in Simon's Bay. You *did not hear* Bedingfeld "*quietly remonstrate*", for by no rule of interpretation can the assertion that "the rivet heads are rusting off" "She will never reach Tette if you go down to the Bar", etc., be called quiet remonstrance. Again I had orders from H.M. Government to see the Pearl safely to the Bar, and had promised to obey, but it is marvellous to you that I should wish to get back my promise before consenting to go up river instead.[1] You ought, my friend, to have known all these points before committing yourself. A vessel painted inside and out with Peacock's patent on the voyage out, with her rivet heads rusting off after one month's service was such a palpable stupid story [that] you could not have stomached it either.

'Again you are altogether mistaken about the letter. It was written at once on receiving B's resignation, copied by Mr C.L. and read by my second in command; but I delayed *delivery*, believing that "I would not be doing as I would wish to be done by if I did not give B. time to reflect". This is what I told you, and you kindly offered to mediate, but I had never quarrelled. It was a question of delivery or non-delivery entirely.

D. Livingstone

'I have said nothing offensive, or intentionally so, but, I consider it quite unjustifiable in you to accuse me of ingratitude to the Navy. Some of your statements are insulting enough, but you don't thereby disparage the whole consular service.

'I don't say it by way of triumph, but it is as well for you to know that, on the evidence given, my conduct has been entirely approved of by H.M. Govt.

'A true copy.
'D.L.'

The letter written before the one about Lake Nyassa.

[1] Livingstone seems to refer to his promise to Captain Duncan.

14*th Novr*, 1859. Makololo built a shed for us on shore.

15*th*. Roofing it with palmyra leaves.

Memorandum. By letter from Mr Young dated 23 Novr 1858, ½ yr. Bonds £195–2–2. From Mr Murray up to end of June /58 £2,334–16–7 due on 4th April.[1]

21*st Novr*. We removed into our hut which affords a good shade and relief from the cockroaches which are intolerable on board. They bite even by day, and make sores by long nibbling at the legs by night. The quantity of food they consume is enormous. A candle left overnight is half gone by morning. Nothing but sinking her will clear them out.

Mr C.L being weak from fever, I took upon me to provide meat. Killed three bush bucks. They come.[2] They,[3] the bush bucks, come out of the mangrove thickets late in the afternoon and begin to feed. This is almost the only time one can get a good shot at them. They are of a yellowish brown colour and have several white spots on the hips, etc. They are what Mr Gordon Cumming would fain have attached his name to as the Antelopus Roualeyni, but it was well known in the Colony before he was born.

21*st Novr*, 1859. By using the shell called ' Jacobs ' I find that I can kill them much quicker than by ordinary bullets. It explodes inside and soon terminates existence, even when fired into the belly. The ball is turned round like the flower of a convolvulus by the explosion.

 , ball as loaded with shell:  , after explosion.

The Makololo have been affected with diarrhoea and bloody stools. They think it is caused by the sea air. The natives generally are afraid of the air, and of the sea, which has separated so many of their friends from all their early associates.

We are anxiously looking for the arrival of H.M.S. Lynx. Sent over this morning to see if a bottle had been left but found none.

In[4] coming down the Shiré in the end of last month we saw the young of a brown kite in the possession of a boy; and a pair here seem to have young. This shews that they do breed in this quarter of the country. I saw two Larks' nests, each with two eggs, a few days ago and a bee-eater is feeding her young in the bank.

[1] Royalties on Livingstone's *Missionary Travels and Researches*.

[2] *Footnote :* Pass two pages. *See above* p. 126 for the passage on Colonization.

[3] *Marginal note :* Continuation of journal two pages back, 21st Novr, 1859. *The interrupted sentence is re-started.*

[4] *Marginal note on new page :* 21st Novr, 1859.

22*nd Novr.* The Pinnace arrived yesterday morning bringing Mr Baines with it. He has left all his baggage up at Tette and has cooked the book of store expenditure, making it appear as if 4 lbs of sugar had been consumed per day. Says he wishes to go to Sekeletu's country and thence to Cape.[1]

The foregoing expenses were incurred by Dr Kirk in bringing Baines down. He[2] sent a bill of Generoso for £7 odd, which I decline advancing, having no funds due for the purpose.

Thornton has gone on to Zumbo and, it is said, intends proceeding to the Kafue. Baines has set the Tette people against us. He plays the persecuted man and, having painted many of their portraits, they feel in some measure obliged to back him up. Generoso wrote an impudent letter to me. I return Baines' bill to him and say that I have no money of his in my possession and no authority to draw his salary. I asked him if he did not know this when he gave the bill and he replied nothing. Write Sr Tito that I had a right to write to Baines as a member of the Expedition and a British subject. I accused no one.[3]

23*rd Novr*, 1859. Called Mr Baines into the hut and told him I wished some explanations: 'he need not say anything to incriminate himself'. Asked him why he had given Generoso an order upon me to pay £7–15. he being perfectly aware that I had no authority to draw his salary.

No answer.

On explaining that I had lent him £5 at Cape (he said it was on board Pearl) and advanced other £5 from my private purse and he had his agent at home drawing his salary, I asked again if he could give any explanation of his act in giving the order as if I had funds of his in my possession, he replied that 'he wished to leave Tette honourably'.

Mr B. was next asked why he had given a copy of Artist's materials in his own hand without signature and withheld the original: replied 'the original was in the hands of Government.'

Shewed Mr Baines a piece of canvass which he had appropriated and offered to exchange for drill with Mr Rae (had stated to Dr Kirk that this was either from a ship in which he had sailed or from Australian Expedition) told him I had seen him take it out of Launch myself. He replied 'O yes, I took canvass out of the Launch' (laughed). Told him the mark was that of Government

[1] Under 22 Novr, 1859, the journal gives details of payments of cloth and provisions made to pilots, canoemen and other natives who brought Baines from Tette.

[2] Apparently Baines, not Kirk: see below.

[3] *At the top of the next page a fragmentary note:* 21st Feby, 4 loaves expended.

and could not have been in Australian expedition as this mark was not then in use.

Replied, ' All the more reason why I should not know it '.

Pointed out discrepancy in his list of expenditure in store-book and what he said remained in store at time when he gave the statement to Dr Kirk. He had put down an expenditure which exceeded the quantity left while the whole account was deficient. The rate of expenditure from[1] Asked Mr C. Livingstone and Mr Rae in Mr Baines' presence if they had consumed sugar to the amount specified by Mr B, or anything like the amount. They had not. The sugar said by Mr B. to be expended by the members was not consumed by them. They had been sick and often eat nothing; and considerable quantities of brown native sugar were used at the very time that Mr B. put down a large expenditure of white sugar. After long and patient investigation and listening to confused explanations it came to this: One barrel of loaf sugar wholly unaccounted for in the book and the greater part of four barrels placed to the members was made away with without being touched by them.

Among other things he said, ' Where is the evidence of my taking the sugar away? Who saw me? Let me be tried by evidence ' etc.

Explained to him that the sugar had been placed in his charge and was not now forthcoming; that his statements in the book as to expenditure were contradicted by the members whom[2] he alleged consumed the sugar and were contradictory in themselves. Wished him to explain and clear up the matter. I had no wish to find him guilty. It was a black burning disgrace to the expedition to have to turn out a dishonest member and I wished if possible to avoid it.

Asked him why he had, when left in charge of the third in command, painted Portuguese portraits with Government time and materials, after I had ordered him not to do so. Permission having been given for two only who had shewn much friendship to the Expedition; and without leave taken a whaler and gone off skylarking and damaged the boat by leaving it to be sunk and dashed about. Said if he had been able to go into the water he could have put it to rights at once. Said he did not know that I disapproved of painting Portuguese faces (instead of the work I ordered him to do).

Asked Mr Baines why he had said to me when about to depart for Shiré, ' I hope you will allow me to remain with the Expedition

[1] *At the top of the following page Livingstone notes :* Pass eight pages *and proceeds to set down details of expenditure,* Extracted from Vol. I. Advances in money and goods to Kroomen, 26th March, Sierra Leone.

[2] So in the original.

though I receive no salary if he was certain of having acted fairly. I had not said a single word about cutting him off.

Replied he supposed his mind was in a different state then from what it was now.

(He at that time too offered to pay for whatever he had spent without orders or allowed to be lost.)

Mr B. tried to quibble about his confession and to take refuge in his head having been affected. Witnesses thought he seemed on the second occasion as well as ever he was.

I do not allow Baines to come to our table but send him a good share of all we eat ourselves. He lives in a whaler with a sail as an awning over him. We all got wet on the 24th and 25th. Dr Kirk and Mr Rae had to run away from the Pinnace wet. Sail blown off.

26th Novr, 1859. Dr Kirk and Mr Rae report that the country between Dakanamoro Isld and Tette is a very dry one, chiefly Mopane, and the only water to be got was salt. In some places the people were actually making salt of it. They suffered severely. Dr K. had an attack of fever which threatened paralysis of legs, etc. Mr Rae had a slight sunstroke from heat and thirst.

Killed a waterbuck yesterday. Shell went through the lungs and aorta and out behind other shoulder, yet she ran a good 100 yards before she died. The water antelopes are very tenacious of life. Everything is very damp here: high tides now. As soon as they retire, we try to dig under vessel and cant her on one side.

Our Newspapers are in general very old. One advantage of this is we see the value of prophecies. Page 528, Vol 104, Quarterly Review—(Lord Palmerston's) ' sun has set and if we read the signs of the times aright not to rise again. Numbers have written this sentence on the tablets of their hearts: '*Come what may, Lord Palmerston shall not again be minister.*' But Lord Palmerston is in again notwithstanding.

The Saturday Review also declares that the first French soldier that crosses the Alps will be the signal for the dissolution of the French Alliance and England returning to the German confederation. But nothing of the sort has happened.

I hear on reliable authority that Bedingfeld told the Portuguese at Quilimane that I was anxious for the rebels over-coming the Portuguese—this by way of exciting them against me. I have seen no difference in consequence of this attempt. For this I thank a higher power.

27th. Saw a large flock or swarm of dragon flies and butterflies passing away to the west among swamps. The voracious insect may prey on the mosquitoes. This pest was abundant last night:

they usually are at new moon, but a North wind from the swamps brings them too. Here they are very small, but bite keenly.

27th Novr,[1] 1859. A case of small pox reported among the Marinheiros who came from Shupanga. It is doubtful if it is small pox, as it has come out over the body and extremities at once. Probably the sarnez[2] of the country.

29 *Novr*, 1859. Went out yesterday for meat. Walked a little way and found a waterbuck shot by Rowe several days ago. Makololo took it though it was full of maggots. Went on alone and reached Melambe without seeing an animal. On returning saw a bush buck, the Mpabale, and shot it. The shell burst without striking a bone.

We dig out the sand from beneath vessel to-day in order to get her on her side for repair of bottom.

Lynx appeared after the foregoing was written. Went over to an island and hoisted flag on flagstaff there. Boat was drifted away from us with two men and only one oar. Got over at dusk and fired a long light and[3] rocket at 8 P.M. as agreed on in my letter. They were promptly answered by Lynx.

30 *Novr*, 1859. Two boats put off for shore but they made for island and not for channel which lies West of the island flagstaff. Went over and signalized without effect. Wind increased to a gale at night. I went to look for fresh meat. Missed a bush buck from firing at its head out of sight. Its horns were visible only.

Journal A.4

1st Decr, 1859

In the plan of operations which I adopt in Africa it appeared to me that the reports of a scientific staff would contribute to the development of the resources—vegetable, mineral and commercial. With this end in view I took a botanist, a mining geologist, an artist, a naval officer, besides a general assistant. The naval officer was intended to give accurate information of the capabilities of the rivers and fix the geographical positions. His views however turned out to be different. He came to exalt himself, and began to scheme his own promotion by my fall. He tampered with the Kroomen and told all manner of lies to the other members against myself. He

[1] ? 28th. [2] See below p. 146 under January 7th. [3] So in the original.

had come to discover the ' Ten lost tribes ', as if, of all things in the world, we had not plenty of Jews already. And when at last obliged to send him home, he told the Portuguese at Quilimane that I was earnestly desirous for the success of the rebels against them, that I had said, ' I wished the rebels might beat the Portuguese '. At the Cape he tried all he could to damage my character and work.

In so far as he was concerned my plan does not seem to have possessed much ' far-seeing wisdom '. I never before met with such a barefaced dirty hypocrite as he. (He suffered from veneral irritable bladder).

The geologist became so insufferably lazy that after eight months' idleness—not eight days' real work having been done during that time—I was obliged to cut off his salary and himself from the Expedition. He began to work immediately afterwards; but being no field geologist, and of only a school-boy's scientific attainments, he will contribute but little to a knowledge of African mineralogy.

The artist and storekeeper was left at Tette in order not to be exposed during the unhealthy season to the malaria of the Shiré valley to which Dr Kirk and I proceeded. He took the opportunity thus afforded of secretly disposing of quantities of public goods, painting portraits for Portuguese, and going off skylarking with certain low characters. I have been obliged to cut him off in consequence.

In these three cases my plan has failed.

The botanist and my own assistant have fully answered my expectations, but the scientific staff has entailed a very large amount of drudgery on me of a nature which would have suited a street-porter better than a regenerator of Africa. Instead of doing good service to the cause of African civilization I have been forced to drive a steamer, carrying luggage, attending to commissariat, as it were, instead of exploring and, by intercourse with the natives, gaining their confidence. All the exploration effected would have been better done alone, or with my brother alone. Had the naval officer possessed ordinary honesty, we should have done much more, and that much easier than we have performed it. Our vessel, ' the Bann ', would have been our home, and there all our luggage would have been safe. A defect in my plan was a not foreseeing the contingency of dishonesty.

The plan which rises up before my mind in desiring to act for the benefit of my fellow men during the portion of my life that may still be allotted to me on earth, is to make Africa North of Lat. 15°

South a blessing to Africans and to Englishmen. The sons of the soil need not be torn from their homes in order to contribute to the wealth of the world. There is room for them where they are, and they may be led to produce their quota, and a large one, to the circulating wealth of the world. There is room and to spare for English emigrants to settle on and work the virgin soil of the still untilled land of Ham. As the African need not be torn from his country and enslaved, no more need the English poor be crowded together in unwholesome dens, debarred from breathing the pure air of Heaven. There is room for all in the wide and glorious domains of the Lord, the king of all the Earth.

In working out the plan which rises before me, my late experience says that double care must be taken for the prevention of that crippling influence which dishonesty and hypocrisy can put forth. The experience has been bitter but may lead to the prevention of greater evil. May the wisdom from above be granted for Jesus' sake.

Journal A.3

1st Decr, 1859. Wind blowing fresh: bar impassable. Went for meat; wounded a waterbuck, but it separated from herd and was lost. Our sheep wandered on the 29th; could not be found on 30th, but to-day it was seen quite wild. It returned always to the spot it had selected for sleeping, but would not allow any one to come within 15 or 20 yds of it. Would not be driven and was shot to secure it.

Dr Kirk has bilious attacks, with coldness and much giddiness. Coldness is of intermittent fever, as it is succeeded by heat and sweating.

Sand dug out from under one side of vessel.

A cobra found in house while we were at breakfast; speared it.

Dec. 2nd, 1859. H.M.S. Lynx fired a gun this morning to draw attention to her signals. Went to island and made a pointer of flag-staff[1] to West of proper channel. On walking round island I found a water breaker[2] and a thwart of a boat. Found in the evening

[1] After 'flagstaff' a minute illustration thus: 

[2] A small keg.

a boat's mast and sail washed ashore. Fear an accident had occurred to her boat.[1] She signalized us this evening the intention to come, or send boats, to-morrow morning.

Water-bucks swarm near to island and, crossing it, swam to Nyalgalue, a good two miles with the rest of the island between.

Many insects on island: butterflies probably laid their eggs there. A tortoise-looking insect abounds.

2nd Decr, 1859. Mbia shot a bushbuck to-day.

Received from Mr W. Caster, Assistant Paymaster, H.M.S. Lynx: Drill 96 yds, Tobacco 100 lbs, Soap, 192 [lbs], Prayer books 3.

3rd Decr, 1859. D.L.

Same date: Biscuits 100 lbs, Rum 7 galls, Chocolate 20 lbs, Salt Pork 624 lbs, Salt beef 304 lbs, Flour 720 lbs, Preserved meat, 180 lbs, Raisins 50 lbs, Lemon juice 36 lbs.

Paid £1 to carpenter of Lynx for work performed on Launch, 12th Decr, 1859.

7 *Decr*, 1859. Went to Mr Baines with Dr Kirk and told him to get all his things in order to go on board to-morrow. Wished to know on what conditions he went. Replied it was on account of an entire failure of duty. Wished to be prosecuted for the sugar: replied that we had no wish to leave our work and prosecute him. We desired to do the best we could for him. Had offered him an opportunity of explaining and it had been unsatisfactory. Wanted to be put up to the entrance of Kongone canal but I answered A fine story could be made out for abandoning him in a wild country.

Baines complained that the imputation would stick to him for life if not prosecuted. I asked what he had to say to wasting Expedition's time and materials in painting Portuguese portraits. Said I had left it to himself (this is untrue). I never answered the note of Pascual at all. (He shewed what he was capable of in trying to stir up the Portuguese at Tette against me and the Expedition).

Memorandum. Sugar finished on 8th April, '59: began again on 24 June at Tette. No rum on board when we went down to meet Lynx. Then it was issued 27 days after we reached Tette from Lynx.

Centipedes and scorpions lose their venom when kept on board ship for some days. Wood got by H.M.S. Lynx from Zanzibar contained many of these insects and but little pain is experienced by a

[1] See *Narrative*, p. 135. A boat had capsized, without loss of life but dispatches and a year's letters went to the bottom.

bite if inflicted some time after the insect is on board. If bite happens ashore it is much worse.

11 *Decr.* 1859. Captain Berkeley of the Lynx remained with us till this morning, assisting in patching the Launch and in erecting a double beacon on the island which, when it bears N.N.E. shews the passage in. When we got the launch afloat another hole was made in her bottom. The plates are so thin that a little of the scaling coming off reveals a multitude of minute holes. Each allows a drop of water to come through and in a space of 6 inches square about 20 may be counted. When this hole was mended another burst out under the engine. This too was mended and at last we put all our things in and left Kongone harbour in the morning of the 16th Decr, 1859, and crossed over to the Luabo to wood. On the 17th went along beach to see if we could find our mail bag. Some oars, preserved provisions, etc., were picked up before, but no mail bag.

12 *Decr.* H.M.S. Lynx left this morning. Captain Berkeley wished to send some things ashore for us but bar became dangerous. Hoisted signals which we could not see and sailed, taking Baines with him. Helped to patch the Launch, but holes burst out in other parts when we got her afloat. Patched again on 13th. On 14th numbers of small holes burst out under boiler. Will wedge and patch them to-morrow.

Baines tried to induce me to take charge of his goods at Tette: declined.

THE END.[1]

Journal A.4

Having loaded the pinnace well up, we came up to Azevedo's house and spent Sunday, 18th, there. Leak sprung out in forehold and filled it; spoiled our soap, biscuit and meal. When we got away from the waves near the sea, and put things in the forehold which will not be spoiled, we managed to keep water down.

19*th Decr*, 1859. Met the Governor of Quilimane going down to see the Luabo and other mouths of the Zambesi, to see if they are fit for the entrance of commerce. He says that the other mouths have been used for slaving. He will make a fort and custom house at Shupanga. (He is a bigamist, having during his residence in

[1] *I.e.* of Journal A.3.

England married an English woman and left her. She has been made blind by his syphilis and is in want. She was supplanted by a Portuguese lady by whom he has grown-up daughters. Captain Berkeley took out letters to him on this subject, and now he does not wish Berkeley to see his family. This case shews one of the benefits English girls derive from foreign marriages).

Came up to Expedition island. Dr K. and C.L. went out to hunt for fresh meat. K. got two oryxes and C.L. two buffaloes.

20th Decr, 1859. The bridge of the engine broken down, so we are obliged to remain here to-day and mend it. This is the fourth or fifth time we have been stopped by this accident occurring. Our fire-bars are of cast iron; this makes a weight sufficient to bring her down of itself, as there are forty of them. Mal[l]eable iron would have been much lighter and stood the fire better; but then it would have been dearer and not in conformity with Mr Laird's idea of profitableness. It is difficult to forgive the meanness apparent in everything about the Launch.

The oryx has a black patch, smooth and about the size of a pigeon's egg, under each ear. Female is differently marked on nose and forehead from male.

Mr de Roebeck volunteered to join our expedition but, supposing that a second master will be sent out, I declined his offer of service. Baines went off in Lynx. Recommended Rowe to be advanced to place of storekeeper at £150 per annum. Parliament voted £7545 for this and £12,000 for Niger Expedition.

21st December, 1859. We are obliged to wait at Expedition island, making a new bridge for furnace. The old one was slimly hung on a single bolt at each end and the slightest touch turned it back.

The Governor of Quilimane passed us on his way up river. He cannot have done more than merely look at the Luabo and return. He cannot have seen the Kongone. Sr Tito had sent his people down to build a house at Kongone, and they have done so at an island a long way from the harbour. It is evident that he wished to establish a claim to the harbour by this movement, but his people have gone to the Kongone canal instead, and he is completely ' sold '. Had he asked us fairly we would have told him correctly.

There is much hunger in the Delta which was depopulated by the slave trade of the Portuguese themselves. A fine country capable of growing anything is a scene of starvation, and now the Governor is going to regenerate [it] by means of a fort at Shupanga!

Rowe has been sick for some time, and to-day resumes duty. Went aboard Lynx on 3rd Decr and has done but little since.

We still make a good deal of water in the forehold, but the perishable articles are removed to other places.

23 *December*, 1859.[1] After stopping two days making a new bridge, we started on 22d. Steam came up well, but in about two hours it went down and has continued so ever since. Rowe knocked down the bridge in first instance, and then shoved a lot of stuff behind it, so as to choke up the tubes. He is growling because he did not get beer, porter, etc., and seems inclined to shew us we are dependent on him. He is offended because we did not wait till he was better.

Came up to the island of Paul Marianno and remained with him for night. He gave us a Lepido siren[2] and some buffalo horns. Says the Governor went down expressly to see us and get information about the mouths of the Zambesi.

23 *Decr*, 1859. Mosiriri is the name of mainland at Mosambique. The river Angonzhe is pronounced Angonzh.

We got several fossil bones, teeth, etc., in a dry water-course in the Delta about 10 miles below Mazaro. They are accompanied by agates, nodules of marl and pieces of broken pots. Some of the teeth are those of hippopotami: others of antelopes, pigs and carnivora. We hope at some future period to go up and examine the matrix from which they come.

24*th Decr*, 1859. Slept last night in Paul Mariano's. He says that the Babisa, who are the chief traders, bring down ivory, but never slaves. This is an encouraging fact.

25*th*. Remain at Shupanga.

26*th*. Dined with the Governor. Like all his nation has magnificent ideas: 'A railway to Angola, sending some scores of natives to Mauritius or Bourbon to learn, etc.', but will not make a commencement in a small way. His hope was to get every sort of information from us about the mouths of the Zambesi, and then write home a flaming report. When we passed him on our way up, his plan of proceeding with us to view the bar fell through, and he at once returned to Shupanga. If he would tell us honestly what he wanted, we would aid him, but he wishes to get the information without acknowledgement.

27*th Decr*, 1859. A North wind began to blow yesterday and in the evening we had .50 of rain. This morning it is cool. Spoons poured overboard by accident. Cut down a molompi tree. It yields a large quantity of red gum.

Natal is a prosperous sugar-growing country: a report given in *Commercial Advertizer* of August last shews that men who came

[1] '23 January, 1859' in the original. [2] See below, under Decr. 29, 1859.

without a shilling now turn £1,500 to £2,000 per annum. The land North of this is undoubtedly superior, and its occupation would undoubtedly eat out slave trade. O for the time to come, as come it will for a' that.

29*th Decr*, 1859. Mangoes ripe at present: freely used, they seem to excite kidneys and bowels and preserve health; urine shews presence of turpentine by its flavour (violets).

João brought us two Dōwe fishes alive. They are about 15 inches long and thick (lepido sirens); have four fins like limbs; appearance of scales, but are very slippery and slide out of the hand like eels, leaving a shiny matter behind. They are of an olive hue but spotted or variegated. A line of holes seems to run on side of head from front to gills. The fish burrows in mud and lies enclosed during many of the dry months of the year. These are fat, though they cannot be long out of their mud prison. Seem very sluggish, and erect themselves only when taken in the hand.

The Makololo say that it is found in the Lui in their country, that it burrows in the bank for about a yard, then turns round again so that its head looks out to the stream. They rise up to surface and draw in air; they make a sort of bark or blutter at surface. They make splashes through the night, apparently trying to escape. They probably eat shells and shellfish, as they have two conical teeth far back, as if to crunch them after they are well in the mouth. The nostrils are situated inside the mouth, probably to be out of the way while the animal bores in the mud.

30*th Decr*, 1859. We are detained at Shupanga in consequence of Mr Nunes failing to send us calico, on the ground that it is now too dear. He wished to know whether I would accede to the price first, = 115 dollars per bale cash, or 125 dollars if paid in March. I sent off at once from Mazaro on 24th, but ten days must elapse ere we get it.

We have had rains which will raise the Meshueira (Maxoeira) and other crops. Beans run all to leaf if sowed at this time, but they serve for vegetables.

31*st Decr*, 1859. The men cutting wood. We got specimens of Molompi, a fine tough wood and fine grained.

It is considered unlucky to meet with a large anteater, the Takaru or Nengo. This is, I suppose, because it is so seldom seen by day. The duck-weed begins to be considerable here, shewing that the Shiré rises.

'The ancients had the spiritual or religious power alone. Theology and the augural arts formed the basis of social science. All the arts of life, agriculture and professions, were under tutelar deities

and all acts of public life, war, peace, embassies, etc., were regulated by theological ordinance and prescription.

'Christianity produced a social revolution in the state, the family, in the bond and the free. It taught that the child was not the absolute property of the parent, that the wife was not the slave, that she might not be purchased or taken from her father, but obtained by her own consent.

'Slavery according to Granier de Cassagnac's view was not instituted but existed previously to all institutions and written laws. Moses and Homer found slavery existing, and so did the Papyrian code. It existed in the family and not in the state, and arose from the ancient absolute paternal authority. First slaves were not reduced to slavery but born in it (but possibly it may have arisen too from conquerors taking the labour instead of the lives of the vanquished). In this we have evils unknown in domestic slavery. Andromache after the death of Hector pictures to herself how she will have to become the menial of some Greek who will carry her in his vessel, that she will be destined to the bed of a Greek Master, and that she will have to draw water from the well, and perform other base offices, while her son, Astyanax, who lived on marrow and the most delicate food, will be reduced to misery. This from Homer, but Christianity abolished this by establishing a fraternity.

'Polygamy was abolished as well as concubinage; the relations of parents to children were entirely altered. The woman was endowed with civil rights, and could buy, sell and dispose of property; and the woman moreover gave herself of her own free will to her husband. Thus the bond were everywhere made free. This revolution Christianity produced (apart from all theological doctrines) in the social relations of man.

'The ancients, such as Aeschylus, Sophocles and Euripides, never put on the theatre what is called a love intrigue, because this supposes that a man and woman who are not brother and sister can see and converse with each other. Virtuous women never appeared in public, or ate or conversed with men, until the establishment of Christianity. Even so late as 449 of Christian era a law allowed a Roman to repudiate his wife if she dined with strangers.

'The ancients had none of those elevated delicate and respectful feelings which we have for women. In Athens, if a man left property to any one and there was a daughter, the heir took the daughter also. Women were even taken back in cases of fraud after years of marriage.'

(Notes from a review of M. Granier de Cassagnac's work. They

shew a great similarity between the ancient heathen and the modern African. 31st Decr, 1859).[1]

In arranging the cabin found a mouse and a serpent, the latter a young cobra. The serpent went into my dressing bag. They probably come on board in the wood, or from floating islands of weeds. We have seen several in the water. A large cobra tried to get into our boat on the Shiré.

Mr Rae mending whaler broken by Baines. One plank rent up about four feet, and at another part there is breakage right across boat. One plank was rent by using it as a fulcrum for lifting boat round by mast. He is obliged to put a patch along about six feet on one side of keel, and patch the rest of it with copper sheeting and canvas. The mending which Baines inflicted destroyed the whalers more than saved them.

1st January, 1860. *Shupanga*. Another year begins. ... Heavy rain all yesterday afternoon and this morning opens with a regular set-in pour. Last night 2.55 inches and Jany 2 = 11.[2]

Monday, 2d Jany, 1860. Rain held up and we had public prayers as usual yesterday. To-day the temperature is lowered and the rain is probably lowered. Can take no observations till we reach Tette and get a new Nautical Almanac. Makololo learn Portuguese, but as usual always the bad words first. . . .

2 *Jany*. Received a note to-day of 23d ult. that Mr Nunes had sent a bale of calico for £22–12. This is very dear, but cannot be helped. Still waiting for another bale. Nothing in the meat line can be got for ' either love or money '. We are forced to use our fresh preserved provisions once a day, and salt beef and pork. Senna is suffering much from hunger. It is disgraceful to find a fine country like this so depopulated and ruined. The Governor, says Vienna, is convinced that no good will ever be done here by Portuguese, but some other nation must come and pour labour into the country. He speaks of France, as da Silva is supposed to be in the French interest. If any one is asked about the isthmus of Suez he shews his leanings at once by either advocating or rejecting the project.

Remember to ask if patients in cholera feel pricking sensations in legs when there is only diarrhoea, or that not even begun. Laud. gtts 15 in 2 teaspoonfulls of brandy, or spices or Ol. Ricin.

Jany 3d. 1860. On the 31st ult. an officer went down from Mazaro by night and seized Paul Mariano. He passed us on 1st

[1] These excerpts from a review of Granier de Cassignac are here printed for what light they may throw on Livingstone's point of view with regard to the topic of slavery.

[2] So in the original : the sense is dark.

on his way up to Senna, where he will be examined previous to being sent to Mozambique for trial. It is for killing one or two men on his island.

The water in the river is muddy and is rising.

3*d Jany*, /60. A considerable rise took place while we were down the river in Novr and Decr, but it had fallen again when we returned.

The one Dōwe attacked the other and, besides eating the hinder extremities, bit it all over, removing the scales, if so they may be called. They have the appearance of scales partially developed and are covered with glairly mucus. A slow breathing motion may be observed, a stream of water running in to the mouth and the jaws working. Every few seconds this water is discharged by the gills which look as if in the arm pits. He rises to the surface, opens his mouth wide, and draws in air. Of this only a few bubbles escape by the gills. Some minutes intervene between these breathings of air. Some pronounce the name Dōa or thoa. It eats cockroaches, does not like his tail touched, but cares little about his head. Tries to bite when annoyed. They eat meat readily, drawing pieces in by suction with great force. They do not like their tails to be touched but one may rub their heads. After-fin is re-forming.

4*th Jany*, 1860. Rain during night .09. The Pilot Tizoura was flogged by Mr Vienna during yesterday afternoon because he had come over to us with the fish ' Dowe ', which we employed him to catch for us. Mr Rae heard the process, and Mantlanyane says his back is bloody. River rising fast and is very muddy.

Resolve to leave the other whaler with Vienna: it is not worth anything; was damaged down at bar by being forgotten one night. He may mend it and it will perhaps do a little service to him.

Later in day Tizoura said his punishment was for coming over here to us from the North bank.

' The utter powerlessness of man except to understand and use great opportunities is perhaps the great lesson of this century. It is not in magic, nor spells, that success lies: man cannot be made good or happy or wise by the mould of either one philosopher nor another. By discoveries, by openings, by calamities, opinions are swept away and men are left to the guidance of their natural feelings '.

' Times ', 5 *Novr*,/58., in reference to Ireland.

The greatest rise of river we have had this year took place last night, and to-day it is about two feet. Received a dish of the wild Anona to-day. It resembles the custard apple and is called Mololo.

Dr Kirk found the Buaze to be a Polygala; it is a handsome one too and is in all probability undescribed.

4th Jany, 1860. River rising fast and wind from Nor-West brings down much of the cloud called Nimbus, with occasional drizzling showers.

5th January. Rain .07. River rising fast.

Men came yesterday from Mazaro but had left the bale of calico. Will pay Mr Vienna in money for food for Makololo and for the wages of men who brought Dr Kirk down, £7.

5th Jany and 6th, 1860. Deliver into Mr Vienna's hands four tusks killed by us on Shiré, for sale by Mr Nunes at Quilimane.

7th. Rain during night and yesterday afternoon: 4.52 inches. Wind from North-W. Cabin leaking all over; botanical specimens wetted. Very uncomfortable, as bedding and floor are wet.

Sr Vienna's negro woman, Donna Seka, gave us a bad account of the morals of the country while we were waiting for the passing of the rain. It seems worse than Sodom, and is utterly bad and abominable.

Rae sleeps ashore on account of the wet in the cabin. It is a wonder we are not more sickly than we are, considering the wretched accommodation we have.

Sr Vienna tells us that Paul Mariano's sister came down yesterday to beg for the pardon of her brother. She offered to pay, and the Governor pretended to be very angry. Suppose she has put it to him in the wrong way, or before some one else, or it was not sufficient. She is said to be drunken.

The disease called by the Portuguese ' Sarnes ', or itch, seems syphilitic. It consists of blotches of a dark copper colour, from which exudes a thin yellowish ichor. It spreads by fresh collections of matter forming under the skin around the blotch, and it gives pain as well as itchiness. I believe it can be cured by Hydriodate of potash after as much mercury as slightly touches the system.

7th Jany. Rain at Noon had fallen 2.32, i.e. in six hours. High winds. Put out the boat anchor in case of chain parting, and got up steam to get into the shore.

Sitting in cabin with umbrella over-head reading Punch.

In afternoon and evening, Rain 1 inch.

4.52
2.32 Rain in about 24 hours.
1.

7.84

8th. The temperature is lowered to-day and the rain is probably

over for a time. Afternoon a windy shower, .77 of Rain fell, succeeded by a calm fine evening.

9th Jany, 1860. A beautiful morning after the rains. The bale not having yet come, we are compelled to wait.

In a letter of Major Secard to Dupratt, it is stated that I was the first that passed over from the sea by way of Luabo. The date is July 9th, 1859 and published in Cape Argus of August 18th,/59.

Bale having come, gave 2 pieces of 30 yds to each of Makololo....

10th January, 1860. We got up steam yesterday afternoon and went a few miles. This morning we touched at Kadampi where the Mango trees stand, but got no wood. Flocks of ardettas pass down river. Rain in afternoon and during night, .37.

11th January, 1860. Rain during night, 1.50. We have had thunder constantly with the rains. Slept at an island below Shamoara. Cabin floor constantly wet, with a smell of dampness and cockroaches which we cannot get rid of by chloride of zinc.

The fever pills seem to gain in efficiency the longer they are used, so that one may decrease the dose. Dr K. uses only half a grain or so, and full effects follow very soon. Formerly 8 or 10 hours were required for their operation, and now only 2 hours elapse before they act freely and relieve the head symptoms at once.

12th Jany, 1860. Rain during yesterday afternoon and night, .55, with thunder.

C.L. killed a bushbuck, Dr K. guinea fowl and francolin. This is the first fresh meat since leaving Expedition island. We are now at Shamoara hill, cutting wood. The buaze is in seed, but it is quite green and pulpy.

She steams very badly, though we had good wood. We were obliged to stop and get up steam three times, and went only a mile between the stoppages. Clearing out the pump this morning, 12th January, 1860.

13th January, 1860. At Shamoara cutting wood: continued rain hinders the work. Flocks of ardettas passing down river. Do they go to the sea to rid themselves of worms by salt water? A large kind of parrot shot by C.L. has orange-red shoulders and legs; a formidable bill, would make excellent nut-crackers.

14th January, 1860. Rain all day yesterday and most of this day. Left Shamoara and in three hours did not make three miles. This day the wind helped us on, but it was drizzling almost constantly.

15th. We were obliged to stop at an island to split up our wood, and remained there overnight and Sunday.

16th. Dr K. got two female waterbucks on the left bank. There

is much hunger now near Senna. People prefer to be paid in grain to everything else. It is remarkable that no attempts have ever been made to irrigate this fine country.

17 *January*, 1860. Arrived at Nyaruka, 3 miles below Senna, last night. A canoe that left Shupanga at same time that we did reached this in the afternoon. We shall be obliged to leave the Pinnace here. We find the meat we got from Lynx bad, and so is the flour.

At Senna we found a mail-bag containing papers, chiefly of an old date. It had come by H.M.S. Brisk.

18*th*. At Senna.

19*th*. Remain and take three boxes of biscuit; leave three casks of meat. Leave the Pinnace as we cannot steam faster than one mile an hour with her in tow. Had an attack like cholera. Better on 21st.

21*st January*, 1860. On East bank opposite Senna cutting wood.

2 cockroaches imprisoned in a bottle. Their two egg case[s] hatched in about 24 hours and gave 78 young ones.

Steaming less than half each day and wood-cutting the other. Very slow.

26*th January*, 1860. Had a severe attack of diarrhoea which seemed to be febrile, though it was of the character of cholera too.

Steam very very slow. Bridge damaged again. The wood cutting is heart-breaking work. We had one load of ebony, quite dry, but it too burned away in a few hours. A ton lasts no time. The heat is very great.

27*th Jany*. Wooded at Nyakassena and came on to Shupanga to sleep.

28. Came on to foot of Lupata hills. Mr C.L. and Mr Rae navigate ever since my illness. We consume an extraordinary amount of wood. Feed Makololo on our damaged flour. Our own is no better, but we make it into bread.

Mochisa, a good fruit, contains India rubber.

30*th*. Came through Lupata with a good breeze. Slept opposite mound where sheep were bought.

31*st Jany*, 1860. Came up to the confluence of the Luenya and slept there. In the morning go to wood opposite to Manoel's.

1*st*. Went on to wood at a ridge of hill[s] below Tette and passed the night there.

2 *February*. Sprung a leak in forehold and found it full in the morning: prevented sinking by the other compartments. Reach

Tette about 12 A.M. Leak in forehold bad. Thornton came at same time fr[om] Zumbo.

3 *February*, 1860. The Portuguese orders to afford us protection at Zumbo seem either to have been accompanied by private orders to the contrary, or they have been so interpreted, for all look upon us with the greatest suspicion, and Clementina has erected huts at Zumbo as a sort of protest against us.

4 *February*, 1860. Thornton came on board and asked if he was in connection with the Expedition since he got my letter. I replied, No. He then applied for instruments: said he would buy a sextant and theodolite. I doubted if I had power to sell, but they might be lent. He has joined himself to the Portuguese. Attends their feasts and plays shy with Dr Kirk and Mr Rae. I read to him what Sir Roderick said in his anniversary address, and told him that he was much disappointed. Answered that he would write something. Says that he had a sort of lethargy he could not shake off or get over —by way of accounting for his eight months' idleness.

6th Feby, 1860. Presented Mr Thornton the following note:

Mr Thornton.
Sir

As you were absent from Tette when Dr Kirk came for the purpose of forwarding you to England, I think it well to make you a formal offer of a passage home by going down the river with us on the 9th currt.

I am, sir,
Your obdt Servant
DAVID LIVINGSTONE

A true copy.
D. L.

Sent ashore to Daniel's house:—
2 cases biscuits
1 — Brandy
1 empty ammunition case
Magnetic instruments
Photographic do. 1 cask Pontiac.
1 box fancy cloths.
1 cask beef.
1 Pork.[1]
1 case wine sherry

[1] On the same line with this is an obscure entry: '6 Riffles long.'

Took away all the white sugar, 3 loaves.
1 tin of flour
2 boxes sardines
1 box of coffee: returned ½ in tin case
10 tins chocolate; 10 essence beef.

Feby 6th and 7th. Removed sugar mill and engine over to Daniel's house; put cylinder cock of engine in a bread cask and all nuts and bolts of sugar mill in same.

Box of fine powder gone from stores in Baines' charge. Noted in list on removal to Daniel's house but awanting in Pratt's list.

7th February, 1860. Tito seems to make out that Thornton was very sick at coals. He did not appear so. Ate heartily and looked well. Dr Kirk could not invalid him, though he asked him to do so. Our presence seems a constant protest against their filthy living, and any one who joins their orgies, as Baines and Thornton did, is sure of their sympathy.

A parcel of hollow rings, presented to me at Birmingham, has been appropriated by Baines and is in his chest. They were shewn to Mr Rae as mine, and he twice asked if I wished to take them out of his charge. Yet he told Dr Kirk that he had bought them at the Cape. Brass chains are gone.

8th February. Very great heat. Mr Thornton came on board and presented two letters stating that he intended to remain some time longer in the country. Says he has no animus against me. I agreed to allow him the use of the instruments in my charge from Royal Geographical Society and any of those he had at present. Says he intends to go down to Natal after being in this country some time. He tried to make it appear as if illness prevented him from working, but he refused to work when he was quite well.

Bought some wrought gold ornaments from Sr Tito to-day. He goes down to Kongone next month and we must leave our things in charge of the Makololo, as Tette people are a set of thieves.

9th February, 1860. Received from Mr Rae the sum of £11–8 on behalf of Baines' mess account, and money lent, and 16/- of public money.

(*Livingstone names ten Makololo, 'those going down river with us', who received guns on 8th February, and eleven others, 'those who went to Nyassa' who 'Received guns too'.*)

Advised Messrs Coutts and Co to place £200 to my credit at Mr Dickson's, Capetown, and H. E. Rutherfoord to give £100 to Mrs L. and £50 to John Moffat. Date Tette 7 Feby,/60.

10th February, 1860. Left Tette at 11½ A.M. and steamed down

to wooding place. Mr Thornton came down in canoe after us with letters and offered his instruments. I told him to take them up to Tette. He seems buoyed up by the hope of discovering a silver mine long reported as existing at Chicova. He hopes to be home by Christmas next.

11*th*. Came down to Eastern side of Lupata and wooded. Fresh leak sprung in fore compartment: stopped up with clay and a weight on it.

12*th*, *Sunday*. Outside Lupata: water about vi feet.

13*th*. Came down on southern side to Bengalla and was obliged to turn back and go to North bank and wood below Nyakasenna. Go on in Afternoon. Cockroaches eat off head off a little weaver[1] kept by Mr Rae. Heat of sun very great. Leaking much in forehold.

14 *February*, 1860. Wooded at Shiramba Dembe and passed on to near Pita. At dinner shewed Hutchins where to go, but he went in another [?direction] and got her on to a snag which burst out about a dozen small holes on the port side near the boiler. Shored her and on 15th, when boiler cooled, put in pins and wedged them against boiler. Some rain by night.

16*th*. Came over to Senna this afternoon. Our mail bag, lost on bar at Kongone, was found by a person at the Melambe and forwarded to Mr Galdino. He sent it on to Sr Isidore and it was forwarded by him by canoe which left Senna on 30th January last. We have missed it again, for we left as the canoe entered Tette.

Dr Kirk went out to see Mrs Farrão's foot. It had been bitten by a dog.

17*th February*. Leave Senna. A remarkable cloud spread over a space of three or four miles, with a fringe below emitting lightning. The upper part was divergent, exactly like a lock of cotton wool on an electric machine. When it came over us we had heavy rain. Wind compelled us to stop, as vessel with pinnace would not steer.

18. At Shamoara wooding.

20*th*. At Shupanga—wooding. Delivered letters to Governor. Invited us to wait for dinner but, receiving 10 pangas of native corn, we went on, and slept above lemon trees. Rain. Opening below bridge plastered up.

21*st*. Leaks worse during night. Ran down to Kongone river by upper canal, and slept near the opening to Melambe. Bought two bags of guavas for one fathom of cloth—spoiled by rain, as there has been much. Sugar cane [?has] but little sweetness from same cause and being too young.

[1] So in the original.

22*d February*. Run down to harbour in the morning. Vessel has an unaccountable list over to port constantly.

23. Sea had washed away about 20 feet of the bank, taking off brasses and specimens of woods we had buried, and all the foundation of my hut which was 12 ft from edge of bank.

24*th*. Built a new hut and took goods ashore: removed into it in evening and observed a reappearance of first satellite of Jupiter. Mbia shot a bush buck. Dr Kirk saw a large tiger.[1] Gun snapped when he was about 10 yds off. It looked at him and moved off, as if saying, ' You are no game; if you were I would eat you '.

25*th February*, 1860. C.L. fired shells into the heads of three hippopotami in the Melambe. Pieces of wreck picked up, as of a ship.

26*th*. Prayers in morning. The bank at the end of right bank of harbour shews remains of reeds and mangroves which have all died off. A new crop of Avicennas and mangroves now springs up, with grass in patches. What caused the death of the former crop on the same spot?

Hippopotamus urine spoils our well. Dig a new one and surround it with bushes to keep off these animals. All game relieve the bladder as soon as they drink. I have often had bad water in consequence.

(25*th*. Gave Mr Rae £10 for a double-barrelled fowling piece to be sold for him at Tette.)

27*th February*, 1860. The tide was later to-day and did not rise so high by a foot as it has done for 6 or 7 days past.

The provisions being dear before harvest in Banyai country, Rains and no news from home, made us decide to go down to bar once more before going up.

June 1858. When we came to the bank on the upper side of Mazaro and landed among the Portuguese and native soldiers, we found that there had been an engagement with the rebels. I stepped ashore and was shocked by the appearance of two mutilated bodies and some heads. A very loathsome smell struck me forcibly as unlike anything I ever felt before. I asked for Sr Tito and was shewn towards some huts, but met Mr Azevedo, who told me that the Governor was very ill of fever and had delivered the command to our friend Tito. Sr Galdino then came forward and begged me to take the Governor over to Shupanga in the steamer. I assented at once and was taken into the hut where his Excellency lay. Seeing him very ill, I went out and told Tito to get men to take the Governor down to the boat. The rebels then began to fire close at hand, and

[1] *I.e.* leopard.

I saw two Portuguese soldiers mounted on an anthill firing down upon them. All was now confusion and I applied to Galdino for men, but none were forthcoming. Bedingfeld was by this time come to the front of the house. I told him that at the request of the Portuguese officers I had agreed to take the Governor over to Shupanga, but could get no one to carry him; 'Be so good then as [to] go down and send up our Kroomen to carry him down'. He replied, 'O Yes', and went off. Waiting some time for the Kroomen and none appearing, but balls whistling overhead, I at last went in and lifted up the Governor myself, and when I had got him a few paces from the door, a sergeant came and assisted me down to the bank.

When Bedingfeld got back to the boat, he said to Mr Rae, 'Let us get out of this. Get up steam as fast as ever you can, and let us go away'. Rae replied, 'But where is the Doctor?' Bedingfeld replied, 'I don't know', was very pale and, when Rae went first ashore, ordered him back. B. said, 'I don't care who is ashore. I shall never come in here again.' Rae then took his gun, determined to see what had become of me and, on coming up the bank, saw me coming with the Governor. On going down again, he found that Bedingfeld had put Davis, a Krooman, outside the cabin door with a gun in his hand and all the rest had guns and bayonets fixed. He said to Rae, 'Catch me again going into the bank! Those who like may go ashore in the boat'. He seems to have been too much frightened to think of my order and would have run away and left me, had Rae not refused to set the engine a-going.

I note this down now because Rae was narrating the story a day or two ago. To such our defence is to be committed in the event of a war. The words in Rae's pocket book are: B. '*Let's get out of this as soon as possible*'. Rae replied, 'Some time is necessary to get up steam'. '*Well, get it up immediately*'. R: 'But the Dr is ashore'. *I don't care who is ashore. Let's* [*get*] *out of this: he can get the boat. I never will anchor at this shore again.* He was very pale and agitated and, when R. went ashore, stamped his foot and ordered him aboard.

Mail to go by end of February chiefly of date Tette 7th February, 1860: Captain Washington, Rev. W. Monk, Mr Young, Mr William Tod, Mr Marjoribanks, H. E. Rutherfoord, Mrs L., coloured men in Wisconsin, J. Livingstone, B. Braithwaite, Mr Le Neve Forster, Sir Roderick M., Prof. Owen, Despatch No. 7, Captain Holmes, Mr Maclear, Mr Scott Russell, Anna Braithwaite, Orpen, Young again about box, George Wilson, Robert, Thomas, Agnes, Mr Randall of Southampton, Vavasseur.

2nd March, 1860. On the night of the first about 4 inches of rain fell and wet everything in our huts. Mr Rae ill in consequence. Last night rain was .20. Many mosquitoes of a small kind came. To-day they continue. Mbia shot a bush buck. Rowe catches a small fish with a hook. People have taken away the brasses and irons we buried. The sea had exposed them by wearing away 12 or 15 feet of bank. Killed a waterbuck with a shell: Mbia another bush buck. Preserve foetus.

5th. Send over to other side for game. Mosquitoes very bad all yesterday: could not read except in Mosquito curtain.

Got 2 water buck and one oryx. Large male waterbuck shot by C. L. ran 50 yds after a shell had burst its heart. Many more were shot through without killing them.

It is common to find a female with young while a half-grown calf is still running with its dam.

6th. This place is bad when North or West wind blows for mosquitoes and fever.

7th March. Mr Rae mending Launch, but the holes are now so large it is almost impossible. Pieces broken off the sides of the holes are, on the outside, eaten into like the skin of a person marked by small pox, but quite shining and new-like, though worn as thin as a wafer. There are upwards of 20 patches, each covering on the average 2 holes. Dr Kirk ill. We must get moving again.

8th. Dr K. better. Rowe very ill. Mending[1] but no sooner is a patch put on than it is necessary to remove it and put on a larger, to cover fresh holes. Three new holes in cabin this afternoon. Rain came in much last night. Making a door for hut, of reeds.

9th March, 1860. Rowe better: took 60 grs of Quinine; is very deaf in consequence. A dose now causes irritability in us. It, with cream of tartar, removed lassitude from me which was probably incipient fever.

10th. Mr Rae still mending steamer—35 patches each covering not 2 but on average 4 holes. Some patches so close on others that we cannot mend, but allow water to come through. The corrosion goes on, as in vegetation, eating out branches and leaving islands of the original thickness.

Molompi, a Pterocarpus, grows readily when cut down. It yields a kind [? of gum] in great quantity when wounded: floats readily.

C. L. got a bush buck by going over to other side. Many mosquitoes there.

11th March, 1860. Though all the African tribes except the

[1] *I.e.*, mending the launch.

Bushmen cultivate the soil and raise various kinds of grain, as sorghum, S. Saccharatum; millet, beans, peas, pumpkins, melons, cucumbers, cassava, sweet potatoes, tobacco, Indian hemp, sugar cane, bananas, plantains, yams, etc., yet no tribe that I have seen ever took up the idea of spontaneously raising fruit trees, till individuals had seen this done by foreigners. Some Batoka who had come down to Tette and had seen the Portuguese cultivating mangoes, carried back seeds of the Macaa's to their own country and one tree is the result. There too the idea of property in trees was first observed by me. They had forest fruit trees in their gardens and are said to plant them. Nowhere south of this was the idea prevalent. I once saw a tree in a garden among the Bamapala, but only once. Northwards the idea of planting trees seemed to have been derived from the Portuguese in the valley of Cassanje. There the headmen, instigated by their example, had made gardens of guavas, but at Zumbo the chiefs gathered the mangoes from the trees left by the Portuguese, and never planted for themselves. About Tette the superstition exists that if you plant mangoes you will die and never eat the fruit. Also he who plants coffee is never lucky. The native life is one of fear: they are always afraid of something.

13*th March*, 1860. Wrote a letter to Captain De Hornsey[1] of H.M.S. Brisk to be deposited on the island before leaving tomorrow. I inform him that Mr Rae will remain at Quilimane till called for. We have waited 23 days in hopes of a vessel calling here but, none appearing and our provisions falling short, we must go up to Mazaro in order to send Mr Rae down to Quilimane by that route. It has been a very tiresome visit, as North winds came down frequently and brought clouds of mosquitoes, compelling us to fly to our curtains as soon as it was dark.

Lost awning overboard this morning, Hutchins spreading it out to dry instead of putting it in its place as ordered. Mbia killed another bushbuck yesterday. Nailed up boxes for Mr Young and Robert,[2] Tette chain to Mrs L., Mrs Maclear and one ring to Mrs Fitch and Bridges.

15*th March*, 1860. Left our station on right bank of Kongone about 4 P.M. yesterday; went to island and buried a bottle with letter 10 ft south of words written on stump with tar, ' Dig 10 feet South '. Then came through to occultation station and passed night. Leaks very large in cabin.

Dr Kirk shot a waterbuck this morning, C.L. an oryx. Wooding on other side of canal.

[1] On March 21st the name is written De Horsey. [2] Livingstone's eldest son.

'The history of voluntary societies shews that it is of their nature to colour highly, to speak strongly and to make a striking picture'.[1]

15*th*. Came along Lynx canal and anchored opposite a bivouac station of hippopotami hunters. Said there is a pathway to Quilimane but when we proposed that they should shew it for a reward, they denied knowledge of it and left us during the night.

16*th March*, 1860. Went down to point at end of left bank and wooded while we went to see if there were any ships in sight. Saw a large alligator, the water being quite fresh down to the sea. Dr K. shot an oryx, but we could not go for it, as there was no good wood where we were. Steamed up a mile and got good mangrove wood. Bees swarming; many bush-bucks, etc. Anchored out in stream to avoid mosquitoes.

17*th March*. Leak burst out in fore-compartment, a very large one. While we went in to the bank to stuff it with a flannel jacket and fat, tide left us and we cut wood till it came back, then steamed up river. Bought guavas and sugar cane and Lemons from village above Kongone canal, and then came up to spend Sunday, 18th March, 1860, above the Pearl's anchorage.

A man came off from the island of Timbue and said that Sr Cruz, the notorious French-emigrationist, had returned to Quilimane, that the Launches are taken from Zambesi to Maindo in 2 days, but the crews are obliged to jump out occasionally and push them. In our shaky condition we cannot attempt going that way, but take Mr Rae to Mazaro. He called Kongone Namisenga and Nannatatane.

19*th March*, 1860. Passed Expedition Is[lan]d but want of wind prevented our making more than ¾ mile an hour; consequently we spent all our wood before reaching any point where we could gain a fresh supply. Must move along picking up any pieces we can lay hold of. It is wearisome.

20*th*. Passed night near a Palmyra and got a dead one—very poor wood. Went on an hour and a half and landed on left bank to wood at a few thorn trees. Moved on at the rate of one mile in four hours.

[1] It would seem that this excerpt from an unidentified source caught Livingstone's fancy as aptly hitting his own judgement of the ways of bodies like the London Missionary Society and its emissaries in Southern Africa. This passage is followed by a quotation from the *Saturday Review* of January 15th, 1859, p. 62, epitomizing Thirwell's account of Slavonic migrations into Greece during the seventh and eighth centuries. Taken with the frequent notes on natives, their habits and customs and the observations on points of natural history, these entries show the range and liveliness of the busy traveller's interests.

21*st March*, 1860. Slept near large Lignum vitae tree, having in yesterday afternoon advanced only one mile in four hours. Sent the men ashore for wood this morning. There are at least 60 bolts in 35 patches in her bottom; this may retard her.

Wrote Captain De Horsey to-day to inform him of letter in bottle at a place on island indicated by words ' Dig 10 feet south '. Mr Rae proceeds on duty and has collection of plants in charge besides. Received some of the provisions sent by Lynx, but could not get his letter by careful digging. Wrote to Admiral.

River Zambesi
21 *March*, 1860

Admiral
Sir F. W. Grey, K.C.B.

Sir

As you have probably found it inconvenient to allow a cruizer to call at Kongone harbour, after waiting 22 days there we left on the 14th March in order to get Mr Rae conveyed to Quilimane by the route from Mazaro, and I have taken the liberty of writing to Captain De Horsey, or the commander of any English cruizer, begging the favour of a passage to the Cape.

Mr Rae proceeds home on duty connected with this Expedition and having besides a valuable botanical collection for Kew, I presume to request your kind services for conveyance at the earliest convenience by any Government ship.

Another member of the Expedition for whom I formerly requested a passage home commenced working soon after he was cut off, and the Portuguese, by the prospect of discovering a silver mine said to have been worked by the Jesuits of old, have induced him to make exertions that all our persuasions could never effect. At his own option he is left to his own resources. I made a formal offer of a passage home, but his hopes being high in respect to the very doubtful silver mine, he declined it.

The scarcity of provisions in the country above Tette prevented our proceeding to the Makololo country till the ripening of the native crops in April. This led me to bring Mr Rae down, movement being much better than inaction in these the most unhealthy months. We have now 35 patches held by 60 bolts on the bottom of the steam Launch, and there are large numbers of minute holes besides. If we ever reach Tette in her, which is very doubtful, we shall abandon steam and go on foot.

Private. Sr Cruz, the notorious F[ren]ch slave emigration agent, is reported to be again at Quilimane. He ships from the

Maindo, a port a little south of Quilimane and Olindi. It is conjectured that he will work the Angonshe river now, but whether he slaves from Maindo or Angonsh[e], his proceeding will be known to every Portuguese in the Province of Mosambique except (so he says) His Excellency the Governor General.

I am, sir,
Your Most Obedt St,
DAVID LIVINGSTONE
Consul.

22*d March*, 1860. After getting up steam yesterday afternoon and going half a mile up to the point where the wood was cut, we took it on board and passed night there, as the sun was set. This morning went on with yesterday's Lignum vitae, but had to stop every 400 or 500 yards to get up steam to about 60 lbs. At 40 lbs she made no headway. River rising fast. When high it is not so rapid as when low, but in the act of rising it is rapid, possibly 4 knots.

'In seven years' time the first bishop of Algeria, M. Dupuch, at his own cost and that of his friends, established forty seven churches and chapels and forty almonries of hospitals, prisons, penitentiaries and other institutions, which employed thirty-nine regular and three supernumerary priests, besides a large number of sisters of Charity. Several orphans Asylums were set on foot by him, and also a house of Trappists, which has not only distinguished itself by the successful cultivation of the soil but by the collection of an extensive series of meteorological observations. The natives are affected in a visible degree by all that has been done for them, and especially by the hospitals, the service of which is in many cases performed by the females of one or other of the religious orders, who exercise a powerful influence on the conquered race'[1]

—From Saturday Review of Blakesley's Algeria.
Jan[uar]y 15, /59.

The calm demeanour of the sisters seemed to be felt like a sun beam in the chambers of pain and death; no sourness of look, no parade of self-devotion. Let works of mercy be done with cheerfulness.

23*d March*, 1860. Yesterday men went off in Pinnace with sail

[1] The exemplary value of this quotation stirred Livingstone to transcribe it. So he hoped to do: compare below, 6th April, 1860, where he speaks of the projected Universities Mission as 'similar to those sent of old.' The final sentence in the postscript has also a right Livingstonian ring.

and cut wood while we waited till 3 P.M., a good breeze blowing meanwhile. Got up steam and came about 3 miles to where bridge broke down first time, or a little past fossil bones. Cutting wood this morning.

24*th March*. Reached Maruru: found Sr Tito on his way down to Kongone to hoist Portuguese colours in token of taking possession. It is likely that Tito will make some sort of building there.

25*th March*, 1860. Remain Sunday at Maruru. Pinnace could not come up for want of wind.

26*th*. On Monday we went over to the point where navigation of Pingazi begins with Mr Rae and slept there in the common reception house. Large mice came to us in great numbers and, when struck at, laughed at us in the most ridiculous manner. The boatmen were not ready so we left Mr Rae. He will go probably on 28th to Quilimane and there wait till a ship calls for him. He goes home in order to superintend the construction of a steamer for Nyassa.

27*th*. We returned to Maruru.

28*th*. Sent to southern bank for wood: men returned in Afternoon. Got up steam and went about three miles to south bank.

29*th*. Cut a palm tree, which took us up to Shupanga mango grove. Pinnace preceded us, having had wind.

30*th*. Found that all the people had either fled or were fleeing for fear of the Landeens. Sr Vienna came up to us from his house on North bank, and told us he had just come from Quilimane. Says Sr Cruz had brought two Frenchmen, with sugar and coffee mills, sugar cane, etc., from Governor of Bourbon to try experiments at Quilimane. Both the Frenchmen died.

Got 25 pangas of millet from Sr Vienna for Makololo. Steamed up to Palm trees West of Shupanga.

31*st March*, 1860. Wood cutting at Palm trees at bend west of Shupanga. Pinnace behind.

4*th April*. Came up from wood-cutting place W. of Shupanga to Shamoara; cut wood there and then move on. Grass very long. No one can walk with any pleasure ashore. Fresh leak in starboard hold; put a pin into it. The Shiré water black and tasting of bogs.

The islands and mainland, which consist of black tenacious soil throughout, seem to be the oldest and were probably formed when the sea was near them. We see that the mud now is collected by the action of the tides in a space about 8 miles from the sea beach and among the mangroves. The islands formed of sand and one layer of black mould on the top are younger, and the islands all sand are the youngest of all and are liable to being quite swept away by

floods. In both Shiré and Zambesi the wear of the river is as a general rule on the Eastern bank, as if the country were rising on the Western side.

6th April, 1860. Wooded yesterday at a clump of trees on the Shiré which is there only about ¼ mile from Zambesi. Then came on to Eastern bank—fine grass for cattle: many animals about. Elephants must have come down here when Shiré was in flood. Answered Bishop of Capetown's letter of 31st March /59, informing me of the Universities sending a mission similar to those of old. It rejoices my heart to hear of it. It is to be in connection with the Propagation Society. The influence they possess with Government will be of great service. I recommend the Manganja country, and a steamer to serve as a home until they have a better. The idea of a bishop with them is excellent. We should have been the better of one in the Bechuana country.

Write again to Bishop of Cape and of Oxford, Sir George Grey and Mrs L.

It is becoming cold in the mornings now.

7th April, 1860. Came up to Senna from Nyaruka this morning. Found that Sr Ferrão and all his family were suffering from fever. He had taken quinine for first time in 47 years. It is a fast day, yesterday being Good Friday and to-morrow Easter Sunday. These occasions are made seasons of drunkenness. The Landeens demand 200 pieces of cloth from Senna as tribute.

Cruz is supposed to have played foul with the Frenchman, as his will leaves all his property to him. It is considerable.

10th April, 1860. Opposite Senna cutting wood. We received two small oxen from Mr Ferrão as Fresh Provisions. He refused to receive payment. Many people ill of fever just now, as this is a bad time of the year. Senna will have a good harvest, as they had plenty of rain.

The Landeens here demand 200 pieces of cloth as tribute, each piece being 8 fathoms long, or £80. They are said to be a civil party. The chief Mawewe is successor to Manikhosi.

There is abundance of ebony here, very black and of good quality. It is not of the true ebony genus but one of the Papilionaceae. There is another variety yielding very good ebony too. Combrytum is that which yields the Lignum vitae. In the West Indies the tree yields guiacum.

11th. Passed night in middle of river and in morning of 12th got over to eastern bank near K[1] mountain. Wooded and went on to a point below Shiramba Dembe.

[1] The name is not completed.

13*th*. Wooding. A honey guide took me to a bees' hive in a tree. Working at dictionary of Senna and Tette dialects.

14*th April*, 1860. Came across to North bank near Nyakasenna. The weight of the pinnace too much when there is no wind. Leaks plaguing perpetually; weather getting quite cold. We had good ebony fuel yesterday but did not make more than six miles in as many hours.

18*th April*, 1860. Having cut a good supply of wood at Nyakasenna, came along South bank and found that our wood failed us, the quantity consumed being enormous. Got some thorn wood at an island. Failed again on 17th at south side of Island Nyamakusu. Leak in middle compartment very bad. This morning stoke hole full within three inches of deck.[1]

19*th*. Wooding at foot of Lupata range (E). Many tsetse here and game. Calf waterbuck shot.

20*th*. Pass through Lupata, wooding in middle. Hornbills frequent rocks, so do the hyrax. Game comes down to river now as grass withers inland. Trees, having put on their wintry hue, are very beautiful from various tints of green and yellow. In distance a colour approaching to purple clothes the hills.

The particles in Sichuana are not parts of nouns which have been lost, any more than *the-a*, *the-which*, *that which*, are so in English. They make the language more definite and were probably formed from a desire to shorten the sentences without losing the force of repetition of nouns.

21*st*. Spend night at island of Mosambique: mending leaks.[2]

21*st April*, 1860. Started from Island of Mosambique at mid-day after shoring the leaks against the boiler. Hill called Karoara behind Tette South-W; bears from near entrance to Lupata 46° W. of North.

The people of Bonga have been fighting with the Barue. This is probably a slave hunt. Poor wretched country! When will a better day dawn for it?

22*d April*, Sunday.

23*d*. Wooded and slept at Domue, which is about two miles above Luenya. Bonga fired his cannon a great part of the night to shew he was not afraid of us.

24*th*. Came up to near Tette. Wooded for last time and went into Tette on the 25th. Tette at mid-day.

Found Thornton suffering from an eruption on his leg similar to that so common among the Portuguese. Has not been able to

[1] A note of an observation of a satellite of Jupiter is not reproduced here.

[2] A rough list of native names for vegetables and grasses is omitted here.

work much. Went to Clementino's. Portuguese claim him as one of themselves. We are more obnoxious than ever in consequence of a false translation made in Tette of some parts of my book by Generoso, in which he puts in names of certain inhabitants and makes use of insulting epithets respecting them. They complain of want of labour, of course, after two years' exportation of slaves to Bourbon. They, as the cant phrase went, ' sent them to the Luabo to cultivate rice ', and now feel the want.

The Almanac of Mosambique claims the country of Cazembe; and that of Sekeletu being between it and Tette, (so they say), it too belongs to them, and so does Kolobeng. They are very angry with their own Government for allowing us to come here.

27*th*. We have placed the Launch alongside the island opposite Tette called Kaimbe. It is rented by Clementino for £2–8 per annum. He gives us vegetables off it.

Observed a reappearance of a satellite last night. This makes our Longitude of 1856 wrong by 20′. It is 33° 48′ 30″ E.

Bought five oxen from Clementino for provisions on land journey at £3 each, 32 lbs or an arroba of Bombay sugar for £1–4. The Tette sugar is disagreeable.

28*th April*, 1850. Weather pretty cold now. Placed £45 in the Expedition bag this day, and paid off £15 and £1–4 as above.

30*th*. Observed reappearance of satellite again.

1*st May*, 1860. Busy packing up goods into bundles for land journey—cloth, beads, brass wire—and making cartridges. Sr Candido lends me his donkey for the journey; refuses to sell it. Sr Govea lends his to Dr Kirk.

The ' Sarnes ' or itch of the country appears non-syphilitic, but very contagious. Every one has it. It is believed that there is not one Portuguese in the country without the venereal disease, either hereditary or acquired. The species of skin disease which shews scaliness on the hands is syphilitic.

2 *May*, 1860. Several of the men ill: we must leave them here with Rowe. One, Mantlanyane, has his lungs seriously affected by an inflammation he had. Sr Tito sends four men to accompany us to Sekeletu's.

8*th May*, 1860. Removing the goods from the late Daniela's house to a room in Clementino's, as that we have rented must be sold. When this operation is finished we shall be ready to start. A shower fell on 6th in evening. Temperature falling caused fever in Dr Kirk and Charles.

The Makololo have learned no good from the Portuguese. They have got into the careless improvident slave customs, spending all

as fast as it is earned. Had I known the state of society here in 1856 as well as I do now, I would have returned them, though it would have involved another year's separation from my family. I shall be blamed by those who never left their families four days for any benevolent object, because I did not make my absence five instead of four years. But I did not intend to spend more than a few months at home, and Portugal said that she had sent out orders to have them supported at the public expense. I acted for the best.

An episode of Tette life: the Governor, drinking with Srs G. and A., was accused by the former of having informed the Governor of Quilimane that he, G., had advised the rebel Marianno to flee and escape the Portuguese. He pinned the Tette Governor to the ground and bit and scratched him till his fellow officer, A., seized a stool and mauled him therewith. Two officers thrashing each other and the Governor being thrashed induced the Makololo to ask me ' if that was the way white people treated their chiefs '.

José St Anna is reported to have joined a party of the late Mburuma's people to place another man as chief instead of one already there, and demanded a grant of land for his aid. He is said to have got from Zumbo to the mountains beyond Kariva.

9th May, 1860. Removed the little engine to-day to Clementino's with some other things. Will finish the whole to-morrow. Found box of fine powder which was supposed lost.[1]

10th. Compared the Chronometers yesterday with those that remain at Tette in charge of Sr Ferrão. A. is 4 m, 16 s fast on Greenwich Mean Time.

Senhor João gave us a pig and sheep in acknowledgement of service in cure of his eye—inflammation of choroid after carrying image of virgin at procession.

When the Fever pills do not act, a dose of salts sets them off quickly.[2]

11th May, 1860. Removed the last of our goods from the house we rented from the Government, and paid rent, £2–14–2 to Sr Terrazão. Delivered the keys. The name of the notorious Cruz, the slave emigration agent, is Antonio José da Cruz ' Coimbra '. but ' Coimbra ' is a sort of nickname from his having swallowed a bill of exchange.

13 *May*, 1860. My brother informs me that the members of the Expedition did not get orders what to do, and were always at a loss how to act; that, so far as it has failed, I am to blame in having rejected the Bann. All were willing and anxious to help if I only would have told them. He never told me this before. I gave

[1] See above, p. 150, Feby. 6th

[2] This precept is framed in double lines.

written orders to each, and, when Bedingfeld failed, took his part upon me so far as I was able in order to allow each to follow his own department untrammelled by other duties. On principle I abstained from multiplying orders, believing that it is more agreeable to men to do their duty in their own way. It is irksome to most men to be in any degree driven as soldiers and sailors are. As he seems to let out in a moment of irritation a long pent up ill-feeling, I am at a loss how to treat him. As an assistant he has been of no value. Photography very unsatisfactory. Magnetism still more so. Meteorological observations not creditable, and writing the journal in arrears. In going up with us now he is useless, as he knows nothing of Portuguese or the native language. He often expected me to be his assistant instead of acting as mine. This ebullition happened because I found fault with his destroying my pillow. It was, he said, all my fault. I rejected the Bann and every evil followed that as a matter of course. He was perfectly blameless, as if my act had destroyed his individual responsibility. He allow[ed] £100 of Magnetical Instruments to be completely destroyed by damp, but must not be blamed.

A Portuguese law is said to be on the way out which decrees the freedom of all the slaves in fifteen years, and 1 shilling per head is to be paid for each male and 6d for each female slave; but ten to one if we hear any more about it.

Mr Thornton on board again: gave us two sheep for the journey. He talks of going to Natal and there wait for instruments.

14th May, 1860. Lent Mr Thornton the Theodolite, as we do not take it with us. He expressed much thankfulness. All ready to start to-morrow morning from Tette. Gave each of the sailors who went down with us to the sea four fathoms of cloth, having previously given four brass rods. To all the rest 2 fathoms and 2 brass rods. Opened Miss Coutts' box No. 1. and gave out dishes and plates, but retain some for the Shiré. We have about two bales of cloth with us and 200 lbs of beads and brass wire.

Authorized Sr Nunes to pay himself for three bales calico, £67, and rice and aught else from price of tusks and £130 which is to be delivered to him in case I don't appear at Kongone on 30th Novr next. The remainder to be handed over to my successor.

Tette, *15th May*, 1860. Intend leaving to-morrow morning. May the Lord guide us and prepare our way.

After a considerable amount of trouble in apportioning the burdens, on account of each having some goods of his own, and being unwilling to carry more than [I] could help, we started at 2 o'clock.

Several wished to remain, but we consented to three only who,

on account of sickness, wished to be left with the ship. These are Makomakoma = Rheumatism, Nuanañombe = ulcer in shoulder, Marambo = Fistula in perineo. When Takelañ saw that his relatives remained, he also desired to be left, first on a sham of fever or sickness, and then on the score of relationship. He and Leshore were left but came this morning, 16th May, 1860, with Masakasa.

Morufurafu fled during night. As it was evident that several wished to be left, I publicly gave them leave to remain, and desired them not to go on and leave us where we could not preserve the goods by carriage nor by sending back to the ship. If any one wished to return, by all means let him turn now. Two came forward and were sent back with their loads. Mongatoo wished to remain on account of a scuffle in which he wounded Kanyata with a spear. He feared that Kanyata would report him at home to Sekeletu, and his death be the consequence. As Kanyata had not reported the affair to me, I explained that no intention could have been entertained of reporting it elsewhere. After a deal of talk he consented to go. I suppose he wished only to get an assurance that no notice would be taken of the affair at home. Another brought forward his grievance for the same object. I then called upon all who felt themselves overladen to bring forward their loads and get them lightened by sending portions back before we went farther. Several availed themselves of this, and some exchanged for the loads of those who had deserted.

The cattle being very wild, we could scarcely get away. Mbia and Matengo were employed in taking them away, but had to send for fresh men. Sent back a party and, while waiting, wrote to the 'Capitão Mor' of the villa as follows:

'É precisa que en do parte a os autoridades Portuguezes que Dez pietos que foi antes gentes de Sekeletu ficão na Districto de Tette como armas sem licença, e agora elles são separadas do a Expedition Ingleza e são sujectos des Leis de Paize. Nomes delles são—Morafurafu, Numaropa, Seamasempa, Mazambu. (Elephant hunters, Seakakenje, Kombarumbe ou Siachiasa, Sekantile). Karimanjele, Namanchembe, Seañgkañgare.

Ficão tres a bordo de Vapor não são inclusidas na aquellas numero. Nomes delled são: Makomakoma, Nuanañombe, Marambo. Elles ficão por causa de diença.

Son U.S. servidor

DAVID LIVINGSTONE
H.B.M. Consul.

Those included in brackets are good elephant hunters and one is an elephant charmer. The commandant is supposed to have drawn them away for his own private gain. By the way he spoke this is pretty certain.

Had we gone up at once on coming into the country all would have left. The Portuguese were very insulting to them up to that time. Their deportment has changed, and hence the defection. Had it been an English colony, instead of 10 out of 80 remaining, only 10 would have returned. Those who remain are chiefly, if not entirely, captives. All who have been with the Makololo from their youth return willingly. I thought it necessary to inform the Portuguese officially of their remaining, as they are no longer deserving of the privileges of the Expedition.[1]

19th May, 1860. At Nyaondue marched 3½ hours yesterday. Sekandinde fled with a bundle of cloth containing 3 pieces, each of 30 yards. His footsteps shewed that he had fled to the hills. In the afternoon Molele went, leaving the luggage he had with him but taking his gun. He had hid himself till the evening and then Chibouga saw him, pursued and took his gun. This evening Nyamakaronga and Tongameka fled, leaving everything. We suspect Rapozo, the commandant, of all this. He has bribed the elephant doctor away for his own private benefit, and all the elephant hunters follow.

As an illustration of the views entertained on free trade, Rapozo asked some of Bonga's people who had come to sell fowls if they would give them for so much—a lower price than usual. On their refusal he ordered them to the fort and tied the fowls round the neck ring by which they were fettered, leaving them so for a night, then sending them off so.

Some of Chisaka's people came with oil to sell at 3 pots for a piece of calico of 30 yards. Rapozo ordered them to drink their oil and threw some over them. When Chisaka heard this he plundered a trader of all his cloth and sent out a party to burn villages. This party retired from Tette, it is said, on hearing of our return, possibly from a desire not to do more than revenge the insult his people had received. Rapozo is probably put into his present position to render the Government of his successor difficult.

21st. The headman at Panzo, Tito's farm, presented a goat and twelve dishes as supper. The valley was very cold. Dr Kirk had ague this morning and after ½ an hour's march we remained for the day. Charles a little better.

[1] For another set of Livingstone's diary jottings, C. 3., covering the period 16 May to 2 June 1860, see Appendix.

The carotids throb visibly in fever. Pulse is often intermittent—three beats, a stoppage and then one loud one.

21*st* Leaving Panzo, marched ½ an hour and, Dr Kirk having an intermittent, we stopped at a village for the day.

22*d*. Marched 50 minutes and Dr K. had another in addition to an attack during the night. Makhete and Mosimane fled during the morning; the former left his gun, the latter took his with him.

23*d May*, 1860. Chika left this morning, and so probably will all who have children. We remain at Pangombe on account of sickness. Removal from low malarious districts to more elevated often is marked by attacks of intermittent, as from the Fens of Lincolnshire to Edinburgh.

24*th*. Queen's birthday. March 1½ to another village: slight shower of fine rain—'Rains of wheat'. Sent Likokotlo back yesterday with 3 pieces of cloth and 30 brass rods on account of having formerly trodden on an abortion in his own country. Very little the matter, but he would probably run away, so we make the most of him, employing a Panzo man to see him safe back.

To-day Seamangara, who really has many sores contracted at Tette, said he was unable to go on further. The real reason is to be with his Tette women. After 2½ hours more reached village belonging to Captain Castelão, who was sent prisoner to Mosambique for administering 'Muawe' to a person he suspected of having bewitched his child and killing her. = 4 hours.[1]

25 *May*, 1860. Seabuletse fled during the night. 'Choka', one of Sr Tito's men, pretended illness, evidently for the purpose of returning too. Ordered up luggage to send it back. Mozungo and two of his men came forward and said that they too wished to return and so did Maulo and Seangara. Gave them 4 bundles of cloth, 7 muskets, 58 brass rods, 2 sextants and one artificial horizon. My double-barreled gun in case I gave in charge to 'Choka' and a letter to Senhor Candido as chief captain of the village, desiring him to count the luggage and deliver it to Rowe.

Illmo. Sr.
O Capitão Mor
de villa de Tette.

Tomon o liberdade de mandar os seis Pretos que tem desejo voltar a as terras de Tette. São na mesmo estado como os outros da quellas ja tinha escrita a U.S. Quando foimos na villa, peregunton elles si volto ao Sekeletu delles era Voluntariamente o responso de todos foá, 'Sim Senhor, queremos voltar as nossa Regulo Sekeletu'.

[1] So in the original: apparently the day's marching time.

Mas agora parece ista responso foa falso porque alguns tem fugido e eada dia o companhia delles vae diminuenda. Peregunton elles quatuor vezes se elles tam desejo voltar as Tette e declaron en se qualquer pessoa que desejo voltar pode voltar sem culpa. Pedio elles fazer o favor não escouder seos intencãoes, mas deixan nos propriamente. Mas depois disto elguns tem fugidos de noite alguns de dia deixando os bagagems na mato. Alguns levão nossas armas sem licenca. Agora mandou istas seix como o bagagem a U.S. e pedio o favor tomar conta e o entregar a os marinheiros Inglezes na vapor.

Os Bagagems são: 4 fumeas de fato cada uma tem 3 pecas de 30 yardas, 7 espingardas com bayonets, 4 meshumbas de arame ajuntadas contendo 58. 2 Sextants, 1 Horizon artificial, 5 de quellas pretos são Basimilongas, e outro e fillio de Sr Tito chamada ' Choka '. Elle esta carregada como espingarda na caixote minha causa particular. Pedio o favor entregen esta seguramente ao marinheiro Mr Rowe. Des culpa a liberdade que en ja tomar em pedindo os boas officios de os Autoridades Portuguizas conforme o voutade de Vossa Governo.

D. Livingstone
H.B.M. Consul.

All seem disposed to go back. Headmen have no determination and their intercourse with slavery seems to have made the whole party more unmanly than they formerly were. Still those who have gone away are, with 2 exceptions, those who never lived with the Makololo, in fact, captives who have nothing to gain by returning to Sekeletu, while at Tette they are considered free men.

Went 1 hour to where spur of a mountain touches the Zambesi. Then 1½ to Pachibebe opposite Panda Mukua at entrance to Kebrabasa = 2½.

26*th May*, 1860. 2½ hours, over rough rocks to village of Defue. This is just past the narrow neck which begins Kebrabasa. At the last village a man who pretends to be changed into a lion occasionally came and sat down near us to salute but, smelling gunpowder from one of the men loading his piece, he removed, trembling very successfully and explained that in his lion state he could [not] bear the scent. He was a Pandora or lion. At the present village there is a house under the tree we lodge under for the Pandora. He presides over the superstitions of the village and gives medicines to enable the villagers to kill game, and occasionally lies in his hut and roars a whole night, or he leaves the village for a month at a time.

Here surprise was expressed at our ignorance in taking some

sticks which, after being employed in charming, are placed at the meeting of two paths and held sacred or ' Mukho ' (=' Moila ' in other parts). I said that I would take all the risk.

27*th May*, 1860. Kaporo pretended sickness this morning and said that he was unable to go on. Reproved him for coming so far and then turning. His companion took his luggage and he came on, but after a while turned round and fled. His headman, Masakasa, evidently connived at his escape. He is given to drinking spirits and would himself gladly go back to indulge in drinking at the expense of the woodcutters and elephant hunters. He seems to have become silly.

¾ hour; then 1 hour = 1¾.

At another Pandora village. Here he came past our camp with a number of boys shouting to him. He uttered a yell, as if of a lion, as he passed. His wife sometimes feels his tail moving about at night. Medicine is then placed on his head and the spirit of his father, now a lion, leaves him and he takes the people out to the field to a buffalo or other animal he has killed by night. All have a firm belief in the power of metamorphosis possessed by these people. It must be difficult to keep up the delusion if dead game is often shewn in proof of their powers.

28*th May*, 1860. March 50 minutes to village of Sakwenda; then turn to W., then N: 2–40 = 3½ inland from river. Sleep at village on bank where a fall was when water was low; at present none.

29*th May*, 1860. March ½ an hour to Luia near confluence. Mount Stephanie bears 296°, 8 miles distant or 10° N. of due W. Cross Luia—water thigh deep—and march behind the block of mountains enclosed between Luia right bank and Zambesi left bank to village of Kambera with Mount Sindabue N.W. of Vil[lage] Nkomba, N.E. and rugged Mtn Mongue N. with Luia at its base = 1¾. This is a better but longer path than that along the bank of Zambesi, but we ascend 1,000 feet to this village. People cultivate the narrow beds in the gorges. Water scarce and found only in small springs.

We make short marches. People have not half loads, judging by what the Portuguese slaves carry. Yet they grumble perpetually and make the journey excessively disagreeable. They carry their own goods besides, which increase the burdens. It is disagreeable enough to find a portion of them unwilling, but how much more so it would be, were it a party of slaves. ¼ of ours have turned or fled, and the same proportion of Sr Tito's and Sr Clementino's slaves.

We thought Karemba very poor but he sent a handsome present of beer, meal and a coney or *Hyrax Capensis*, which we acknowledged, as in all cases, by giving more than the value.

30th May, 1860. 1 hour and rest close under Sindabue. People making corn-safes of bark of trees, to be filled with corn and placed in hiding places in the hills, so that, in case of flight, they may not starve: shews feeling of insecurity. 1 hour more to village. People present ground nuts and a hyrax. Tastes somewhat like partridge.

3¼ hours to-day. Sleep at village on rivulet Kabadzo in a valley next to that of Stephanie. Our own people purchased beer, and headman presented some. We give two yards of calico to each guide and are well served in consequence.

31st May, 1860. Our party desire to rest to-day, influenced probably by the beer abounding here. It is nutritious. Promised to rest at Zandia's, where water abounds. March 1 hour and breakfast at Zandia's stream called Ziba. On starting a man called Semasiko fled, taking his master's goods with him and leaving ours in the road. He was a thief in his own country, and got speared at Tette while stealing from the garden of José St Anna.

1st June, 1860. Remain at Zandia's village to rest people. Abundance of tufa here. People bring sugar cane for sale. Declare that there is no other cataract but Murumbua, which we visited with his people last year. Mantlanyane and his companions returned in the afternoon from killing a female elephant, the first killed by the Makololo with guns. They at once said, 'Where is Siachiasa, the elephant charmer who remained at Tette? O we shall kill elephants without him!' It is fortunate that this one was killed without help.

2 *June*, 1860. Went 1½ hour Northward to the elephant and found it to be a young female of following dimensions:

Circumference of forefoot		41 inches
To wrist joint		15 —
To elbow		39 —
To top of withers	7 ft	5 —
½ circumference of chest 69 in. or	5 —	9 —
From root of tail to line of mouth	10 —	0 —
Ear, Horiz. diameter		32 —
Vertical diameter of Do.		43 —
Tusk inside flesh		13 —

Tusk outside lip	18 inches
Girth of Do. at lip	7 —
Hind foot to knee	38 —

Punctae of nipple 12 in number. One tooth only in use, and that is very small; fore part worn well away.

She had a calf already weaned, and was killed with a few balls. She placed her calf on the safe side before and after she was wounded. When dead or when at rest the bend upwards of the back is well back, but when running the animal draws itself together into a heap in the middle. The hump then seems to be in the middle of the body.

We submit to the law of giving one half to the owner of the soil. They are not strict in its observance here, and they seem glad to get any of the animal at all. It is not a native but a Portuguese law, and introduced by the latter from fear. In Senga the law is not strictly observed. The undertusk is sold cheap to the hunter.

People in this hilly region collect quantities of the cow-itch[1] pods and burn off the prickles before extracting the beans as food. It is extensively used as an article of food, though always quite wild. One kind is cut into thin slices before being boiled.

A species of cucumber with spines is also much cultivated for the sake of the oil which is extracted from the seeds. It is called 'Kasonga' and, though like the colocynth, has no bitterness of taste. The larger kind is named Makaka.

Zandia's people sow rice, plant sweet potatoes and sugar cane. A new kind of Pennisetum observed growing wild, also some plants of the Buaze. There is a great deal of *Lignum vitae* and ebony growing on the hills and valleys.

3d June, 1860. The temperature falls during the night to 57° and at 8 A.M. it is 68°. The air feels very pleasant, but during the day the shade is sought for protection against the sun.

Zandia came last night from an elephant killed by some hunters from Tette. We gave him the under tusk of ours and tried to get information from him as to when this custom commenced. He was wary and said it had been introduced by Undu, a great chief who lived West of Shiré from Nyassa to the Zambesi.

As Zandia saw Undu, it is probable that this powerful chief, who kept the Portuguese in order, adopted this law from them soon

[1] Cow-itch, a climber bearing velvety pods and rampant in damp places. 'The bean pods are covered with fine silky hairs of a reddish brown which if touched cause . . . a combination of itch and burn which is almost unbearable for an hour or two, leaving large white weals and blisters. The "velvet" can also blow off the pods on to one's clothing and soon work through to the skin'. (Debenham, *The Way to Ilala*, p. 192.)

after their settlement in the country. Nyassa goes by the name of Chibébe too. Zandia is a clever old man and possesses a large tract of country.

Our people are drying their meat over fires to be lighter for the journey in front. We had a foot roasted in the ground, native fashion. A hole is dug and a large fire made in it. When the ground is thoroughly heated the foot is placed in it and covered up with the hot soil and coals. Then a fire is made over that and kept up all night. In the morning it is ready. It is the cushion which is eaten. The hind foot is the best, the forefoot being hardened by digging roots and bulbs.

3 *June*, 1860. Zandia came with three pots of beer as a present and 2 for sale. Explained that this was a present for the attendants only, as we did not drink it. He ought to bring some sweet potatoes or rice for us. We gave 2 fathoms, one for himself and one for his beer. He said that the 2 pots were not his and he would not divide our present. I offered to cut it, but no, he would [?not] have what had been given by his friend divided and, the 2 pots not being his own, we must give another fathom. To avoid appearing to cheat him I had to submit to be cheated. He seemed to feel that he had a perfect right to one tusk and half the meat of the elephant, and probably believed that we ought to be obliged to him. He was a little boy when Undu reigned all over the countries West of Shiré to Zumbo. A chief called Zombue reigned East of Shiré at that time.

Fine tree called Mowawa grows here. Stream is named Chiringa. Ringa means to love one's family only, and any living here would do so.

4*th June*, 1860. Marched 1½ hour to a piece of water near where we slept on our former march last year called Pakapimbe. Pakapimbe 1¼ to well Westward. Guides pretend that there is no water in front. All our people raise a noise like a parcel of slaves. They are worse than those brought out of Egypt by Moses. Past Westward down a deep ravine called Paguruguru, covered with granite blocks. 1 hour down this brought us to another water which they pretended they had not previously known.

Tsetse here called Mphezue; is known to be associated with buffaloes and elephants. Has bitten the donkies to-day. Sleep under a Mokuchong tree in fruit. Up country Batoka call it Moshoma—here Chenje.

5 *June*. March down same defile with high mountains of great beauty all around. We went up a hill last night and viewed mountain upon mountain everywhere, all clad with trees to their

summits and the various tints of green, yellow and copper colour were very pleasant to behold. Zebra and Rhinoceros foot prints abundant; shew water somewhere near. Singing birds, a more certain indication still, were not wanting. When you hear the songs of birds, you know that water is quite at hand, but the turtle dove may be met with in very dry spots, as it can fly far.

Abundance of Lignum vitae and ebony everywhere, also Buaze. Tsetse. An[eroid] Bar[ometer] 29.35 at Tette. Western entrance to Kebrabasa 29.57, or about 160 feet of difference.

At Pajodzi, which we reached to-day, bearing down river 158°, Up 270°.

Went to Western base of Murumbua and looked down stream: all smooth, but narrow, and rocks jut out, but not such as would impede a powerful steamer.

6th June, 1860. Min. 57°. T[emperature] at 7, 64°. March for hill of Pamarisa, 1½ hours, then 1¾ to ford Mavuzi and 25 m[inutes] to sleeping place where buffaloes seem to feed much: = 3½ hours.

When breakfasting, a small chief called Motumba came and sat down at a distance. After a deal of talk and clapping of hands by his attendants, he sent a message to us, saying ' that he would not object to our passing but had come to clothe himself, as the charge for our passing through his country '. As he offered nothing but this impudent message, the Makololo denominated it ' stealing '; ' as he did not shew the usual hospitality to strangers by presenting food ' and we had ' simply walked on God's land ', ' had not eaten his country ', we should give nothing. When he found that the dignified way of sitting at a distance with three or four people would not do, he came to where we had finished breakfast and paid our guides, sat down and commenced an oration to one of his own people. Without noticing this, we rose and began our march, greatly to his disgust. These small headmen demand and receive tribute from all Portuguese.

Mavuzi is the most common ford for avoiding the rocks of Murumbua. River narrow, from 50 to 100 yards. Rocks all black, as if polished with shoe blacking, for about 30 feet from low water mark. River rises at least 50 feet at times.

Measure off 100 feet on bank at the most rapid part we came to; sent Masakasa—who wishes to be named Kebrabasa—up stream to throw in pieces of reed and wood, and noted the time they required to pass between the stakes: 15s, 20s, 23s, 17s, 16s—Mean 18s, which gives a current of 3⅓ Knots per hour, or taking 14s, this gives 4⅕ Knots per hour.

When Dr Kirk comes down into the lower lands he feels cold, though the temperature may be 25° higher. On the heights he feels comfortable at lower temperatures. He has intermittents frequently.

7 *June*, 1860. March ¾ and wait for people ½ an hour. When told to start they sat still at the fires and now, when desired to march, remained laughing. They seem to believe that we are dependent on them and we must do as they please. I threatened them with my stick but they only laughed, until I applied it to two of their posteriors. They came on, but threaten to return to Tette. It looks as if Masakasa were playing false, for it is his party that is most rebellious and talk most loudly of returning. 2½ then 3½ to breakfast = 4½[1] hours. This led us out of hills into plain of Chicova.

8 *June*, 1860. T. Min. 55°. 1½ to bend south of river. It is quite sudden and to the South. Chicova is a flat on both sides of the river, very fertile, but deserted at present on the North bank. Passed the ruins of two villages; corn-stalks shewed last year's cultivation. Marks of Rhinoceros abundant. He deposits at stated places, scattering about the old and sometimes the new. He is of the black variety: dung full of bits of sticks and leaves; foot prints have more of the hoof appearance than the Hippopotamus, whose toes seldom break the ground. R. breaks the ground with the broad hoof-like nails. Zebras, one eiland[2] and one Kudu: many buffalo foot-prints.

On passing a large Tamarind tree people ran to it and made obscene gestures to it. This is done by the Portuguese too, who, on coming, generally adopt the superstitions of the country.

Passed a chief's grave planted with trees and having a little hut at the root of each for the Bazimo. Chizaka, in ravaging the country, would not touch these, and indeed a church is a sanctuary all over the country. 1½ hours we passed a rivulet running to the Zambesi; ¼ to a village of Sekuangila or Nyalobilo.[3] River about same as between Tette and Lupata. Tsetse abound. = 3¼.

9th June, 1860. Min. 47°. 2¾ to Zambesi with uplifted hills on opposite bank. First villagers ordered us off as the Basimilongue returning with the English. Mopane plains; low scrubby acacia bush and many marks of buffalo and Rhinoceros.

People very obstinate since we left Tette and my brother keeping up his sulks ever since we left Tette. Boundary of Chicova Westward is a rivulet called Nyamatarara opposite the hills called Manyerere or 1¼ hour to rivulet Nasinjere. Uplifting agent of

[1] So in the original.

[2] *I.e.*, eland.

[3] Headman's name Chitoro, *addition marked to come in here.*

rocks here is Porphyritic trap. Rivulet contains plenty of good coal. It burns freely, like English domestic coal.

11*th June*, 1860. A large male Hippopotamus shot by Mbia measured as follows: Height to withers, 55 inches; ½ circumference of chest, 51; entire length to end of snout, 11 ft 9 in.; circumference forefoot, 29 in.; from ear to end of snout, 30; ½ circum. of Head between eyes and ears, 39½ in.

Went back four miles to measure it: body covered with scars from contests with his compeers. Gave foreleg to headman of village as he was civil and gave us nuts, maize, etc., but he tried to get ½, yet was silent when told that this was the law only in case of elephants.

From Nyamatarara to Murumbua 108.30′ or only 30′S of East, the bar. being 18° W.[1]

Journal A.4

Monday 3*d Decr* 1860. Left Tette, taking Pinnace in tow of Launch, both being in an extremely shaky condition. We took both in case of one sinking. Water began to rise a few days before and, though now quite a foot below the former zero of the tide gauge, we came easily to our wooding place below the Padre's farm.

4*th. Tuesday.* Slept near Lupata the Western entrance; have during dinner time been taken on to a shoal; pump filled with sand.

5*th Decr.* Came through Lupata and passed night at our wooding place below Bandari.

6*th Decr*, 1860. Passed down along North bank about three miles with great difficulty. Pinnace, being water-logged, dragged Launch on every bank. She filled half full of water every night from holes in her bottom made by Teredoes.[2] The finger may be thrust through the planks with ease; is of no use and never can be made available for any service whatever. Decided to break her up and take what parts of her are capable of being used as firewood. Outer planking all eaten with Teredo and inner near the bottom all rotten; can be bruised between fingers with ease.

DAVID LIVINGSTONE

[1] The ensuing twenty-nine pages of the diary are blank. Livingstone resumes his record with his Dispatch No. 9 to Lord Russell, for which see below, pp. 387 ff.

[2] Ship-worm.

8*th Decr*, 1860. Water being very low we ran aground every quarter of a mile and made no progress. Weather excessively hot and sultry: Zambesi 95° at 3 P.M. A short exposure tires much. Spend Sunday opposite Marabvi—a bunch of trees on an island; behind runs a branch of river.

Refumbue, a small lake, lies about N. or N.N.W of it. Plenty of game near.

Kashau = sawfish. Bokingo = long snouted fish. Lenje = a Pike.

15*th Decr*, 1860. By the lowness of the water and the perpetual bursting out of leaks we have made very little progress this week. The day before yesterday was the first fair day's sail, and that was much impeded by a strong head wind, but we came from Shupanga to Nyakasenna and spent Friday mending leaks and pump. This day we have come to about a mile below the large hollow Baobab on the South bank, and here we shall spend the Sunday. We have two store rooms constantly full of water.

Ratels[1] make towards the Tendo Achillis when wounded and cut it through, often taking of[f] the heel entirely.

17*th Decr*. Came and wooded at Shiramba Dembe; then got over to the East bank to pass night. Showers by night.

21*st*. Wooded on East Bank near Kevramusa and below it; then came down to Chemba island. Went aground on a sand bank and could not move the vessel off. She had great weight in the two full compartments and, when we drew her round, the stern sank in the water. Worked away the sand from under her upper side and she gradually filled, in spite of all our efforts. We took out all our goods and on the 22d went over to Chemba island.

23*d*. Sent Dr Kirk down to Senna for canoes to take us away. River rising fast.

24*th*. At Chemba writing despatches.

25. Christmas on Chemba island.

Senhor Ferrão kindly sent two large canoes and provisions for us. On 27, 28 and 29th we were at Senna. The wood Mokundukundu resembles (quinine) or cinchona tree very much; is also very bitter and febrifuge.

30 *Decr*. At Senna. Some people came with Isidore's traders from Mosilikatse: they were Batoka of Sekote but fled as soon as they saw the Makololo: they could not be prevailed on to return. The party had been away 14 months; brought 30 oxen away but all died except 2 in the way. 1,000 sheep and goats, only four hundred arrived at Senna.

[1] The South African honey-badger.

31*st.* Left Senna in whaler and two canoes, and sleep at an island called ' Diante ' opposite mouth of Shiré. Great rain.

1*st January*, 1861. Reached Sr Vienna's opposite Shupanga and slept in a shed. His farm, one mile square of rich alluvial meadow, rents for 50 dollars per annum. Its cost is 600 dollars.

Sr Vienna gave us a sheep and goat, 10 lbs of coffee, 15 pangas of corn and many mangoes and pineapples, and would take no payment. Marianno is coming back again, notwithstanding all his murders. Azevedo died 10th Decr, /60.

Copy of a note to Mr Thornton

SHUPANGA, 1*st Jany*, 1861

MY DEAR SIR,

Towards the beginning of last year I took certain measures in your behalf and am happy to inform you that I have heard by a mail which we found at Tette on 23rd Novr last that your salary may be restored to you without deduction if I can give a recommendation to that effect. As I was influenced by seeing you engaged in the work which I could not prevail on you to perform for some eight months, my recommendation would come with all the greater force if accompanied with a proper report of your geological researches for the use of H.M. Government.

I enclose several letters which were found in the afore-mentioned mail. I shall wait for an answer for some months before proceeding farther in the matter.

I am etc.,

D. LIVINGSTONE[1]

[1] Livingstone transcribes Thornton's reply 8 pages later in his diary. The entry runs thus :

(Copy of a letter written May 7, 1861)

ZANZIBAR, *May* 7, 1861

DEAR SIR, I arrived here from Mosambique on March 2d last. On March 10th I wrote to Sir Roderick I. Murchison, giving him a summary of my geological work on the Zanzibar district and in reference to my separation from the Expedition. I said (to the best of my recollection) that so long a time had now elapsed since that took place, during which I had met you several times at Tette on friendly terms—that as you had twice helped me with instruments which had been of great service to me in making my map of the country, and as I thought you would now willingly moderate some of your accusations against me, that I would not at that time give my defence.

On April 13th last I received a packet of letters and papers from Quillimane, containing one from you dated January 1st, 1861. In this letter you not only do not moderate your former accusations against me but even repeat it in an aggravated form, and, as your letter is worded, I could not give you the report you wish without

2d January, 1861. Reach a low island below the lemon trees. Water rose suddenly during the night: we lost a Revolver in consequence.

3d. Buy cabbages and cassava roots near Kongone canal and sleep at Azevedo's farm.

4th January, 1861. Reach the sea and find that Sr Tito had erected a house, and six soldiers had been here four months guarding the flagstaff. We took possession of Tito's house. A number of hand barrows in it for making the fort.

11th. The grave of paymaster of the Lyra washed away by the sea. We burned the bones and erected a cross made out of the rail of a ship found on beach.

18. Finished answer to the queries put by the Oxford and Cambridge mission.

24th. Coloryna, a Rhamnaceous tree found by Dr K. Some kinds cause quick fermentation.

28th. Coffee, tea and biscuits done. No ship appears. Engaged chiefly in writing. Very high tides this morning.

29. Send Jão off to Shupanga to bring down some tea, sugar and provisions.

31. Boat goes over for meat. We have generally had ample

acknowledging that for some eight months you could not prevail on me to perform my duty.

From home (latest date Sept. 1860) I have not heard that you have stated anything *publicly* against me, but I heard that Sir Roderick Murchison 'implicitly believes your statement that I had grown idle and useless'. I therefore wrote to Sir Roderick Murchison on April 19th, laying before him the main points of the case and of the circumstances under which I acted, and concluded with the following two charges against you—*First*, that you condemned mainly on the evidence of your brother C. Livingstone, without making a proper enquiry into the truth of that evidence, and without giving me an opportunity to defend myself: *second* that you condemned me for having done no work without even asking me what I had done. To this day you do not know what geology I did or did not whilst a member of the Expedition.

In conclusion I cannot accept a restoration of my salary in exchange for my geological work without an accompanying restoration of my character.

I am, Dear Sir,

Your obedient Servant,

RICHARD THORNTON.

To Dr Livingstone.
(A true copy, D.L.)

P.S. Decr. 12, 1861.

I have just found time to copy the above and have not a moment left to write to you, but will do so on the first opportunity.

Yours truly,

RICHARD THORNTON.

To Dr Livingstone.

supplies of meat from island Nyangalue, and sometimes a bush-buck on this side; but we cannot cross when the wind is high. . . .

A barque-rigged ship appeared to the East of Flagstaff island ½ an hour before sunset. Anchored far off, 8 or 10 miles. Answered our signals at 8 P.M. . . .

1st February 1861. Went over to the Flagstaff island after the heavy morning's rain had passed, under the idea that we had seen a boat land on the Island East of it. It must have been a hippopotamus, as no boat was to be seen. We saw however another vessel besides the barque-rigged one, which seemed to be schooner-rigged. It was standing off the Luabo, as if trying to enter there. We intended to go over again and put up a flag of calico, to arrest its attention, and make a fire, but wind and rain got up in the afternoon and prevented [us]. The barque-rigged vessel seems only waiting, and caring nothing about the entrance, as she must see the flagstaff.

2d February, 1861. A set in rain and high wind keeps us stationary, as our whaler is rotten and helm useless.

16th March, 1861. We made a mark on a tree at the water's edge last night and found on morning of 17th that the water had fallen 5 inches. In evening it was down to seven inches. This made me decide to return to the Shiré. If we went farther up, there is a strong probability that we shall be detained for the season. This to the Oxd and Cambridge mission would be disastrous. I proposed that Dr Kirk and I should form a land party with the Makololo to examine whether the river were navigable far up and whether it really, as all the people assert, comes out of Lake Nyassa. Recollecting that this is the season in which much dew is deposited on the grass and much rain falls, and trying to act for the general good of the cause in which we are engaged, it was decided to go down river as soon as we could, and proceed by the sea to Johanna and thence, with the bishop's party on board, to the Zambesi.

18*th*. Got under weigh and stuck on a bank close at hand; got her off and slept afloat.

19*th*. About a mile down and aground badly, broadside on to the shoal.

20. Worked all day getting out anchors etc.; aground.

21*st*. Passed an anchor astern and got her off; on 22*d* sorting up and came down a few miles. Water gradually rising; but for this circumstance we should have remained aground for the season. Bishop worked very hard in boats the whole time—an excellent fellow.

23*d*. Wooding. Requested Mr May to deliver up the accounts. He did so, shewing the probable amount at present in the ship.

The agreement entered into by Mr May, Geddey, Hardesty and Meller having been produced, I called Dr Kirk to see it, as he is the second in command, but Mr May said that he understood himself to be so, and that he had come to supply the place of Captain Bedingfeld. This cannot be the case, as for we have distinct instructions that Dr Kirk and Mr C. Livingstone should, in the event of anything happening to me, ⟨should⟩ act as the 2d and 3d in command.

Journal B.1

3*d July*, 1861. At Mañkokue's on river Shiré. Arrived here yesterday; visited the chief on the 1st and found the village in affliction by 3 women and a child having been drowned by the upsetting of a canoe through a land ship.[1] Asked him where we should live; he said our former spot at Chibisa's and to plant on the island Dakanamoio, or any where else we should choose.

On saying that the bishop's party would go and live up at Chibaba's or Chizunze's he said all the chiefs up there were his children, and added that he was ' Rundo ', of whom we had always heard. On coming yesterday took turkeys and sheep ashore, and then talked about our residence, not, as afore stated, on first day.

3*d*.[2] Rain all day. Went to Rundo and gave him some needles, knives, looking-glasses, cloth, and little accordions. At this last he fairly burst into a laugh, and after conversation reverted to his goods, as if delighted with what he received from the bishop and us. Before giving the presents he was asked whether any objection would be made to our settling below his village in case of not being able to go farther up. He replied that it was not a marauding party but one of peace, and a man like me was not to be driven off like a

[1] So unmistakably in the original: the meaning is obscure.

[2] After the previous entry Livingstone wrote down a list of native words with their meanings, as follows: Motora, head chief Zomba. Landa = to attack. Chireva tsanu this tongue. Mongo father of Mañkokwe. Bonde grandfather. Garu a dog. Mbiti = otter. Mamungo India Rubber: Mpira Ditto. Chimkue = parrot. Bŏna = Deity. Kunda tame pigeon. Kasenje needle. Za da pita did not pass. ko soka = sew. Phudzi, enlarged scrotum. Phute, a boil or pimple. Sodzora = untie. Menyatu = cut there.

dog. Whereon we wished to remain, there let us remain. 'The country is yours'.

4th July. Thick mist hanging over the whole horizon. Rain through night. Chief says that the rain ceases here this month. Got under weigh at mid-day and on passing up found ourselves on a snag which held us some time, but did not injure more than break pieces off the paddle floats. Was then told by our people that Mankokue had said that we came to take his country from him and make his people our servants, as had been done at Senna, Tette, etc.; that he would fight for his land, etc. I went with the bishop to his village but he had hid himself, and we saw 'Squarehead' only, who seems now to be in power. Left a message that I had come to Mankokue's village by his own invitation. He came up afterwards opposite the ship and requested me to come alone to him. He then ate in[1] all his previous statements and added that he only wished a fine coloured cloth for the spirits of his ancestors who lived at the spot we proposed remaining at. I added that the spirits of his ancestors would be glad to hear the words we had come to tell him, that I was a friend, and that they were not unfriendly with me, that I acknowledged his authority, and that he ought to have told me about his scruples before, that I proposed to live below his village at the place pointed out only in the event of not being able to get up to Chibisa's. He expressed himself satisfied with the idea of our going to remain at Chibisa's—so we proceeded up a mile or two.

5th July, 1861.[2] After examining up to the village where we were nearly shot at first visit, we dragged the vessel her own length and came up to the island below that.

6th July. Came through by the high bank of village and cut wood. Then steamed on till within ½ a mile of Chibisa's. Met a native when on shore who told me that a plant which I plucked was an aphrodisiac. It is called Mandimui. Saw a large comet in Ursa major; tail more than a ¼ of the arc 90°. It is about the same distance from the most Northerly pointer as 'a' and 'b' from each other.[3]

8th July, 1861. Delayed some hours cutting and begging wood. When about to weigh anchor we found that Mankokwe had sent

[1] So in the original, obscurely.

[2] Miswritten '1860' in the original.

[3] Here Livingstone gives a rough sketch of Ursa Major with the comet and its tail below for purposes of comparison. The distance between the points 'a' and 'b' is that between the two stars at the top of the plough's 'body' (α and β). Since he could not see the constellation from the latitude of the Zambezi, Livingstone must have judged the distance from memory.

up our sheep and turkies, as he did not wish to have aught to do with us. We returned his goat and went on. After some difficulty we got up to Dakanamoio island in the evening.

9th. Went ashore this morning and told the people of Chibisa that we had been ill-treated by Mankokwe, and asked if we might build a house for Mr Rowley, who remains. They referred us to Chibisa, and we sent a message to him at Doa, 2 or 3 days distant, and a present. Some people from Zomba were present; they have come to ask assistance from Chibisa against the Ajawa, who have burned their village and taken off their children.

10th. Search for wood to make a new capstan head. The Hornbills eat a species of Strychnos: sit with bills open. Is the large bill connected with their poison fruit in the way of funnel for passing fumes away?

15th July, 1861. Left the ship at Dakanamoio isl[an]d, in charge of Mr Gedye and started with Bishop for the hills. Marched 1½ to the gorge by which we ascend and through which the Rt[1] flows. Fine wetting rain all morning. Another hour took us past two villages a little south of our former route. View of Shiré very fine.

16th. We made a very long march yesterday in consequence of wishing to reach a village where food could be bought for the carriers but, on arriving, we found it deserted and were then led some miles wrong to an inhospitable village. People at first refused us fowls, goats, or even a hut, but thought better of it, and we got a partial supply and spent the night. Started this morning at 1-50 and after about 2½ hours reached Mbame's, now living on the ridge with Mpemba on our North. I became sick on last ascent and resolved to wait all day. Soon after our arrival we heard that a slave party would shortly arrive. We had time to think, and remembered that, as it was a Tette hunt, we must probably sacrifice our goods there. They came in trumpeting as if in triumph. We went to them and found one of Sr Teeto's[2] (Secard) slaves as chief. He denied that the people were taken in war but, on asking the people themselves, we found that 2 men had been bought, 6 had been stolen and a number of women had been captured after their husbands were killed. 'We shall run all risks and release them', and did so accordingly. They were 84 in number, chiefly women and children. They shewed their joy by a universal clapping of hands. On asking Katura if Sr Tito had sent him he said 'no'. Sr Candido or the Governor? 'No. We left secretly'. He says Sequasha of Tette was the chief of their party. He slipped off.

They fled as soon as they could get away. Of their guns only 2 of

[1] ? Rivulet. [2] So in the original

four were serviceable. They shot two women in order to make an impression on the rest, and killed a child because its mother could not carry the burden besides.

The bishop was out bathing and, on returning, said he fully agreed in the measure. He had doubts at one time about interfering, but none now.

17*th July*, 1861. Left Mbame's and by mid-day came to village under Mt Soche. Found that a large slave party had left that morning, warned probably by the drivers who escaped from us. Sent Makololo after them, but did not come up to them, as they were fleeing and had thrown away their corn.

While on the way we got a party with eight slaves tied to a hut. We liberated them and clothed them with some cloth found there. The hunters escaped.

18*th*. Sent off Dr Kirk and four men with orders to send one boat up and another down the Shiré to catch them in crossing. Then marched to Mongaze's where Mr L. and Waller, with the Makololo, captured 6 slaves and 2 of the hunters with four guns. Tied up the hunters, who were known to belong to Tette. Said that the Governor of Tette's slaves were slave-hunting at Zomba. Mongaze, tipsy, liberated the men by night.

19*th*. Left Mongaze after admonishing him that, if he sold his people and encouraged slave-dealing.[1] Breakfasted at a village called Mikoko, of which the headman is Nsumbo, a frank hearty fellow who pressed us with much beer. Went on to Chibaba's and found that, on his decease, his place was supplied by Chigunda. A small bag of coffee was left behind by a Senna man, and one of the Makololo returned to seek it but wandered, and, not coming at night, caused us to send off this morning

20*th July*, 1861, and the party returned at mid-day too late for our next march.

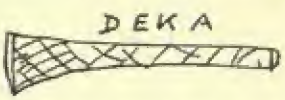
Chigunda asked if we should remain 3 or 4 months, and [on] my replying that some of the party would stay in the country with the liberated slaves to cultivate the land, he said, 'Why not remain here? This is a good spot', adding, 'All the people in front have run away from the Ajawa but us. They will have no one in front'. I said that we did not wish to disturb any one's garden. He volunteered to shew a roomy spot. We asked his relation to Rundo or Mankokue, and found it slight. They give him ivory killed on Tamanda, sometimes visit him, but he never visits them, nor did they tell him of the Ajawa invasion. All acknowledge him as the paramount chief.

[1] The sentence is incomplete in the original.

The Ajawa are a body driven out of their own land by two chiefs called Notokola and Kaingua; have been 3 months here; attack and plunder the villages and sell the captives to Portuguese slave hunters. They are numerous, have some guns but bows and arrows in general. The Tette people sent up cloth yesterday to buy slaves from them. We seem to be invited to stand in the gap and arrest a flood of slavery. May the Lord direct us.

Chigunda has gone with the bishop to select a spot for habitation. The stream Magomero contains a good body of water, about 10 yds broad and 1 foot deep.

21*st July*, 1861. Very severe attack of haemorrhoids, causing retention of urine. Air cold and bracing. Rain again yesterday. People here make very neat mouse traps of an oblong shape; sharp points stand inwards from the rim to prevent egress but not ingress:



22*nd*. Left Chigunda's and in three hours came to Murongue's at Manyanga and were informed that a party of Tette people had passed that morning; followed. We got them 4 miles west and liberated about 43 captives.

23*d*. Went with some Manganja N.N.W. to the pass from Muata Mangas. People fleeing from Ajawa, villages burnt and enormous quantities of food scattered about. Found the Ajawa just returning from a marauding expedition in which several villages were burnt. A long string of people carried booty. When they saw us some called out ' War, War '. A panic seized the carriers and all the plunder was dashed down. We went down the pass slowly and found their fastness well placed for their kind of war. They began to shoot at us while we called to speak to them. A war flag was waved but, thinking it to be one of peace, I ordered our men not to fire, but theirs continued to shoot poisoned arrows. We then drove them back beyond their town and slowly returned to allow them to come and speak; but they thought it a retreat and closed up to us. We then drove them back and fired their town filled with plunder. They never came near again, but chaffed with our people from the hills, threatening to attack us by night. One man fired a gun three times. All the captives escaped, but only 2 with children came to us. We went down to the bottom of the hilly range and ascended by another pass. Came home after 12 hours' march. We hope that the effect may be to check the restless marauders and slave dealing. The headman is Akomosanje.

24th. Arranged for a meeting with the chiefs and went on to Chigunda's at Magomero.

25th July, 1861. Met a party from the chief Chisunze and the neighbouring headmen. Told them that our object in coming was not to make war on any but to teach men the will of God, but, finding on our arrival that the Ajawa were murdering and plundering and selling the Manganja to Portuguese, we interfered to check it, and now, if they would give up war and slave-catching, we should live in peace with them. They said that they had come from Chizunze to ask us to go and attack the other party of Ajawa living near him. I told them that they were guilty of selling people too, and now, if they would agree to give up the practice, we should build a stockade as a place of refuge for the women and children, while all the men should unite as one man to repel the invaders. They wished the mission to come and live with Chizunze, but it was replied that it was too far to carry our goods thither, that near Soche was a better country, but we were influenced by the greater number of people here. They replied that they would go and tell Chizunze and had no doubt but he would be pleased with our living here. Asked again if all would unite as one man in case of invasion: they replied yes. And refrain from slave selling? Yes. If you wish to buy cloth, sow cotton and we will buy it all. 'Where can we get seed?' This was answered by supplying them with good cotton seed and telling them to sow it wide.

After a present to Chizunze was given, the messengers went off to him. We have thus inculcated Religion, Union, abandonment of slave-selling, cultivation of cotton, and defence. Charlie, in distributing the seed, added, 'There, take and sow that and buy cloth, and sell no more people'.

A few hours afterwards Chizunze made his appearance with all his men. No sooner had he sat down than one of his people, as prearranged, burst out with the news that the Ajawa were coming down to attack us and were close at hand. This was intended to excite us to compliance with a request to go and fight the other Ajawa at Zomba. We replied that we were not come to fight [but] to inculcate peace. He then desired us to come and live at Mitande with him, but we mentioned the great distance. He said that all here were his servants, and it was better we should live with the headman. We urged the greater number of people here and the necessity for the teachers being in the centre. If a stockade were built, then the women and children could flee into it, while the whole body of warriors would repel the invaders. To this he replied that he saw he was dead already, and all we should hear of him was that

he had been killed, that we would return to our own country and leave him to perish, etc. After joking a little with him, I said that we should live here at Magomero. He came back a little afterwards to claim a woman we had rescued from the Ajawa, but she had been wiled away meantime. Four or five men came at night and got away another woman. Most of them will go, as that is their own country.

26*th July*, 1861. Spoke to Chigunda about the thefts of last night. He excused himself from sending a message to Murongue, on the plea that none of the headmen here visited each other, but afterwards sent. Had full morning prayers, as intended shall always be the case in this mission. People here have five rams. Chigunda presented two baskets of beer. The basket work is well made to contain fluids.

Visited the whole promontory in order to see where it could best be defended and rendered at the same time more private than at present. It is about 80 yards wide and 150 yds long. A line of stockade across the upper portion would effect the objects contemplated, and a dam would deepen the stream all round. The Magomero is about ten yds wide and generally knee deep.

Captives here 74 in number—44 boys and young men and 24 women and girls 6.

27*th July*, 1861. Several specimens of a new kind of lorie secured by C.L. The hideous leprosy becomes none the less hideous from our becoming familiar with it. Clothing very scarce here. One man fled last night: they don't believe us yet. The headman Morungwe came and offered to take Muavi if we doubted him guilty of the theft [of the] night before last, and says that he will go and enquire among his people.

28*th July*, 1861. A man, marked like an Ajawa, was caught in our camp this morning, and we could not believe the assertions of Chigunda that he was a Manganja. He deceived us before in the affair of the man whom we seized at Nambos. We freed him after further investigation and gave a cloth.

Chigunda does not wish to yield up the Promontory, but wants to live on it with them. Great quantity of wood cut in one day, and half the fence put in. The house will soon be ready too, as labour is cheap—10 poles or trees for a fathom.

29*th July*, 1861. We start for the ship this morning, leaving Hutchins to help here. In one hour cross our stream, Magomero, and then cross Moanche, about same size, and Nyangkunde. Then rest at Ntendere Kanyanyezi Rt, and rested a short time at Nsambo's and then came along flank of Churadzuru to Mongaze's. Cross a

fine stream near to him. Scudamore and Procter not arrived yet. Did arrive about 3 P.M. all right.

30*th July*, 1861. Parted with Scudamore and Procter about 8 P.M., and marched through pass of Bangue at mid-day. Fine blue flowers in full blow. People beginning to burn grass. At Soche's in afternoon saw a number of minute Polypi in pond; looked like fine hairs attached to bottom. Glad of a fire in the hut.

31*st*. March to Mbame's. One of our party from Soche had a wooden sword of his own making. Remained at Mbame's only long enough to drink coffee, and went down hilly range of Mpemba to spend night at a village surrounded by hills. People apparently never visited before.

The children whom we freed had just begun to imbibe the slave spirit of selfishness, for they snatched at the first food offered them like wild beasts and one, who failed to secure a portion, looked up to me crying, with eyes suffused with tears. They soon came back to sharing with all, as in the common state. Some have come from parts where flesh is scarce, for they use the 'kitchen'[1] carefully, picking a small portion of the meat to each mouthful of porridge. One, only 3 years old, does so, and is fat and contented.

A great motherly woman had clasped three children to her broad bosom when I approached to free her from the bands around her own neck.

1*st August*, 1861. Slept in a deep valley among the hills and reached the ship at mid-day: found that Dr K. had marched through, so as to reach the Shiré before the slave party and sent a boat up, and himself went up Western bank. The boat had Dr Meller,[2] Mr Rowley and Hardesty in her: Mr Gedye commanded. The latter went up a mile or two, and began to buy fowls and goats, telling the people at same time what he had come for; then refused to go further. Half a mile would have taken the boat into the middle of the slave party crossing with a hundred slaves: he had a fine breeze blowing too. Rowley and Hardesty went on foot and told G[edye] that the boat could follow. 'I am going back', etc: he was ordered to go as far up as he could, and they could do nothing. Rowley turns sick at stomach when he thinks of it—arrant cowardice.

Another party, headed by a Portuguese and carrying 50 muskets, crossed at the ship. My letter to Gedye was on the bank at the time this party was to be joined by another that crossed at Mankokue's and would have amounted to ninety muskets. They had no luggage, and pretended to be going to avenge some injury done at Zomba.

[1] In the Scots sense of 'food'.

[2] Livingstone spells it Mellor, as earlier he writes Procter Proctor.

They marched to Chigunda's, slept there, and retreated across river at Mankokue's, sending a message up to the ship that he 'had killed no one, took no slaves and done no harm to anyone, and was now returned '.

This retreat is due to Dr K. He went up to Kapuiti's village and found slaving going on there, and the people all disposed to hide the slave traders.

Chibisa's answer was that the English[1] was a chief and his brother: if he wished to build, he was welcome: if he wished to leave his goods, he was to do it: if he builds near, good; if far away, good: if leaving him, good: when away, good.

Mankokue sent a message to Chibisa to expel us from the country. He also crossed the slave party over at his village. The message sent by Mankokue was told us by Chibisa.

2nd August, 1861. Clear out after-cabin; find an enormous amount of pic[k]les and tripe, 5 boxes of Windsor soap, though Mr May declared that he had none for any one. All on board was private property! He seems to have come out as an informer from the Hydrographic Office.

Chibisa's messenger came and said that that chief wished a gun, powder, cloth, and medicine for gun.

5th August. Four slave hunters came to village on right bank of Shiré, and Chibisa's people hid their cloth and helped them to escape. One gun was taken from them by a Senna man.

6th. Started 2 boats for the cataracts. I went overland, a good day's march, to the first cataract. It is evident that all the people connive at selling slaves, and Chibisa is so under Bonga that he is obliged to help his messengers.

7th. Slept at first cataract or Mamvira in village of Matite. Yesterday I found a boy of 12 or 13 sound asleep in a village; touched him to enquire the way. He only opened his mouth and emitted a yell, and ran off, roaring at the top of his voice. All Matite's women had fled, and remained away. Carried the boat up, about 3¼ miles, and passed a cataract about 150 feet, divided into various portions which dash from side to side in a beautiful scene.

Kapechira falls above Mamvira on Shiré.

8th August, 1861. Leave Mamvira Cat[arac]t and go up to the boat; put it into river and go by tracking[2] about a mile, when rain commenced that stopped us.

9th Aug. Carried boat about a mile to village of Tette. Water smooth but rapid. People not afraid of us as on first visit. Rowed

[1] So in the original: ? Englishman.

[2] So in the original.

up stream another mile to Hippo trap and sleep there. Cloth in great demand. This seems to give the slave traders their power. The presence of the boat creates no alarm.

10*th August*, 1861. Carried boat about ½ a mile to Mukurumadze River, crossed up a ½ mile from confluence and went enough to make about 3 miles. Left it on heights. The Mukurumadze is the boundary between the Manganja and Maravi or Marawi tribes: is waist-deep and flows over blocks and masses of syenite, 20 yds wide. We had the help of 28 Manganja; difficult to get on with, but payment will improve them. We see the mountains Soche and Lilandi in the distance.

We had rain again during night and this morning too. Is this an unusual thing here?

The mission is happy is having various temperaments associated together. The bishop is High Church, and a strict disciplinarian in theory, but liberal and very lax in his control in practice. He has changed in some points, as the 'Divine right of Kings'. Procter is very far from being High Church: does not believe in Apostolic succession and is not to be blindly led by any one. He will choose and keep his own way. He is very orderly and sedate, and in love. Rowley is very high, a dissenter from the Dissenters, and shows the characteristic zeal of such. Wonderfully combative, but very good tempered withal. Scudamore will take all things easy and will lose or forget anything he does not like. Waller, the lay member, very careful and somewhat anxious: does not believe in Apostolic succession, Baptismal regeneration or any of the High Church tenets; argues briskly against them—is, in fact, a low churchman. They are on the whole a very happily constituted family.

11*th August*, 1861. Spent Sunday a little above Tette or ½ a mile below Mukurumadze, the boat waiting for us 3 miles ahead. A heavy shower fell this morning, though the temperature is lowered considerably.

12*th Aug. Monday.* Started across Mukurumadze with the goods and came up to the boat in an hour. Went on to a rill and sent men back for boat. Very cold this morning and Manganja cannot stir till the sun is warm. Theirs is but a covering for decency but is no clothing. See zebra footprints at the rill. The Manganja carried the boat, and the men the goods forward to a village some 3 miles, and there we spent the night. Hear the waterfall Pampatamanga. It took 3 pieces of calico of 8 fathoms each to pay 50 Manganja. Some remained with us overnight.

Temp. at 6 A.M. 44°.

13*th Aug.* Manganja carry the boat and our people the luggage

to the river. We cut a good many small trees for a passage. Reached the river again above Passorire hills. Went down to see cataract at Pampatamanga. 2 hippopotami shot by Dr K.

14 *August.* Temp. 6 A.M. 58°: rain prevents us going on for some time. Put boat into river, and tracked her up about 2 miles to the place where the hippos lay. Carried her 100 feet past a dangerous spot. Saw for first time a spider's web of this shape:[1] the Vandyke part was of several folds.

15*th August*, 1861. Cold and rainy morning. We remained over to-day to dry flesh and wash.

People told us of another hippo which had gone ashore and died: 'they could not touch it because it was English'. They have respect for law or custom but, to superficial observers as we must be till we can converse, are very inexplicable. 'Scizzors', our pilot, will not eat hippo flesh, because his forefathers did not.

The Ajawa put pieces of grass into their mouths and when the Manganja gave them beer, pulled them out and accused their hosts of wishing to choke them, and fined them or fought them forthwith.

Kite seen 15th Aug. 1861, above Pampatamanga cataract.

16 *Aug*, 1861. Heavy rain through the night; seems set in this morning very extraordinary weather. At mid-day took boat up about a mile, then carried it another. Offered beads to those who preferred present payment, and cloth to those who chose to work more for it. All preferred the cloth and farther work, except 4. There were 40.

Saw three graves with broken pots and a broken axe handle on them: they were on the bank of the river.

A Marabou shot by C.L.: from tip of wings 106 inches. Hippopotamus and elephants are not killed by poisoned arrows.

17*th Aug*, 1861. Went on to the boat and Launched her. Rain during night again. Went a mile and then carried her 200 yards. Went on about 3 miles. One bad rapid with a little island [? on] opposite side.

Paid about 40 Manganja and engage others to go on.

18*th Aug*, 1861, *Sunday*. A little way below Kavuma.

19*th*. A foggy morning; soon cleared up. The path at the place where we spent Sunday must go behind the hill Westward: took the boat up past Kavuma's village, then carried it 50 yards on other bank. We made about 2 miles and found river in front all rapids together. Found a frank man called Pandakwaea, who is obliging. We hope to reach the cataract Tedzane to-morrow.

[1] Here Livingstone inserts a faint sketch, showing nine radial strands with indications of an intricately laced centre. The drawing is too indistinct for reproduction here.

20*th August*, /61. Got the boat up to the reach above Tedzane by one march of about 3 miles, opposite hill Seangkata. Remain here overnight. Visited by Mumailea's mother, a remarkable woman with great curiosity. Rain again during much of the night.

21*st Aug.* Sailed up a reach of 2 miles to the great admiration of the natives: then carry the boat past Morewa Cat[arac]t, which may be 100 ft to about a mile above where we took her ashore. Islands above the cataract. Hill Musindi seen above us on East bank. From it we saw the smoke of Pamofunda or Pamozina falls. 2 miles more and carry past another rapid.

22 *August*, 1861. Rain again this morning. Barometer shews 960 ft above ship. Kataimbia cat[arac]t in front.

Carry the boat about 1 mile overland past the cataract, which is about 50 feet, and sleep in village Malango. Sleep in Malango.

23 *Aug.* Went about a mile in the boat and then carry it at a bend where there are many islands covered with fine trees ¼ mile. The fine beads seen here are bought with meat of game killed here. A pallah is said to be killed with one poisoned arrow. The poison is in larger lumps than usual.

Got the boat carried about five miles to a point above Pamofunda cat[arac]t at hill Konfunda. Remain during night: part of luggage behind. The cataract here ends in a basin with a fall which, when the river is in flood, will form a cloud, as the mass of water is converged into a point as it falls into the basin. People flee from us at first, but soon return.

24 *August*. . . .[1] Remain about ½ a mile above Pamofunda cataracts over Sat. 24 Aug. 1861 and Sunday 25th. Pampadza is rapid in front. This place is in 15° 22′ S. Lat. Saw a dead body tied up a tree and emitting great stench, down near Pamofunda cat[arac]t. Several skulls were lying about. From being a burying place it may have derived the name Pamozina as well. One tumultuous cataract above the main one descends about 30 feet, the other 500 or more feet.

26*th* Aug. /61. Cloudy morning: defer starting till we see whether it will rain or not. After about a mile came to a rapid where it was necessary to drag the boat past 50 yards. Went on another mile or two, and found the cataract Mphalabe, the last in the series. River then trends away Eastward. Went three or four miles and spent the night on a flat, having Mopane on the West. Many buffaloes and elephants live on these plains. A long range of hills lie on the West, N and S, about 10 miles off.

27*th Aug.* We are now fairly on the upper Shiré. The water

[1] Here are notes of observation, perhaps for latitude of Pamofunda.

all deep and smooth. 2 miles reach village Matope on South bank: headman Chirembue.

Motora land is at this bend, Rongue land in front.[1]

28 *August*, 1861. Both this morning's march and yesterday's country covered with huts of fugitives from East of Shiré. Sailed a few miles, then touch at [2] and went thence to Kalonjere, a chief from other side, and other name Molakalala. He said, 'Have you come to take me back to my own country?'—a portly old man. Presently 2 of Chibisa's people made their appearance, in order to appropriate the credit of anything we have or should do to the Ajawa. They said they had been sent with Chibisa's 'tail' to drive away their enemies with. They had come up by Mongaze's and across country, saying more of their party were behind, i.e. ourselves. I explained to Kalonjere that the Manganja, by selling people, had invited the Ajawa to come, and that Chibisa's man had hidden and assisted to cross Shiré the Tette people who had instigated the Ajawa; that we had not come into the country to fight, and would go on to Nyassa. Charley added that when Chibisa had heard of our driving the Ajawa off, he had then sent his medicine tail to take the credit of it.

29 *August*, 1861. Smokes begun. On passing Motopue's dump of fugitives and asking if they were his people, he started up himself and said that he had been obliged to flee by the Ajawa. Met large parties of fugitives, many of them in a state of starvation, fleeing southwards to Kalonjere's They were heart-rending objects. At breakfast a poor child sat picking up grains of hard corn off the ground and eating them. Alarmed by my coming, it made off but only on its hands and knees, from weakness. I wished to give it some of my breakfast, but the people refused to bring it, as if they thought I had put medicine in the food. Long lines of fugitives all afternoon, the last, a woman, reduced to a perfect skeleton.

A hippopotamus opened its jaws on the counter of the boat, but did no harm: followed some distance, as if bent on mischief.

People say the Ajawa fled up to near sick[3] station and have but one gun. Kalonjere has two, and seems a sensible man; but it is easier to cross Shiré than[4] fight for country.

30 *Aug.* 1861. Sailed in boat to-day up to the fish village of

[1] Here follows a page with a drawing of a fish Mpasa or Sanjika, with the note: 'Urawe = Morewe, a fish found ascending a small stream, Riverive = Mpasa—by Manganja. It is going up to spawn, and resembles the salmon. It is found at Quilimane, but not at Senna or in the Zambesi. Possibly comes from the sea by another route (Rovuma?) or uses the Lake as a sea. Has process for digging.'

[2] A space left for the name was never used.

[3] So in original, obscurely.

[4] 'that' in the original.

Motengaziko: his people all passing over to West bank. Ajawa gradually coming up river and Manganja all fleeing across stream.

Kalonjere tries to make capital of us as friends of Chibisa and of himself. The bishop ought to extend his influence by coming up to Kalonjere's and feeding the starving fugitives.

31*st August*, 1861. Sailed from Mevunguti ford to Lake and then across Westwards in order to meet the land party, but no opening among the thick belt of Papyrus appeared. One man sold us a water turtle called Kamba. Others came out to see the boat. Many fishing weirs planted, and many fish appear. Water from nine (9) feet to twelve.

Do. Towards west shore it shoals, but has six feet. Bottom of sand where deep, and covered with an aqueous plant when shallow. Seems 5 or 6 miles wide but smokes obscure everything.

On getting at last to a passage through the thick mass of Papyrus, we walked up to the village of Makonka and waited for land party. Chief says that he has fled from an Ajawa. Chief named Unkata.

When the land party came in, they stated that they had been surrounded by a large number of villagers, and death threatened, but two friendly headmen came and rescued them. Headman here gave a pot of beer in morning.

Septr 1*st*, 1861, *Sunday*. A wretched sleeping place, swarming with mosquitoes and stinking with malaria, made us go on this morning about 5 miles. Land party are not so civilly treated if a white is absent, but our presence inspires respect, so I went with these on foot, though suffering from last night's exposure and from fatigue of the other foot marches. Much cultivation, people civil. Some asked if we wanted to buy people. This seemed a natural question to them. People met on the Lakelet Pamalombe asked it too: they seemed to know sails. Plenty of fish in Lakelet and the people who live on its banks are tall and well fed. Rice is grown and one Mango tree was seen at our last bivouac. The belt of Papyrus round the Lake is at least 50 yards broad. The range in the west is called Nambia. 2¼ fathoms found a mile out this morning.

2 *Septr*. Had to bend round to south to get out of Lake, then went about 2 miles to . . .[1] village (Kambele) . . .[1] Then came into Lake Nyassa with a fine breeze, running sometimes 7 knots. Found water at entrance two fathoms and, after one cast on a bank of nine feet, we get 15 feet. A line of current carries aquatic leaves with it. There the water is dark and bottom sandy. Went about 2 miles beyond ford at Mosauka's to another village. People here remembered that we promised to return. I said, 'And we shall

[1] Here Livingstone's faint pencillings are illegible.

return again to buy cotton'. The person spoken to clapped the breast of our man and said, 'These are the people that weave all the cloth, and if they come here to buy cotton and tusks they will enrich us.'

On asking about the Lake, they say it turns round to the West, and is very large, and there divides into two, one looks west, the other North. The Lake is not encumbered with Papyrus, as was Pamalombe. There the sulphuretted hydrogen blackened the white paint of the bottom of our boat. There is a line of current in it, probably the deepest part. Adjacent country densely peopled: every spot cultivated. The land party passed through a mile square of maize sown in deep pits in a sandy soil. Elephants on east side. People use the bark of trees as cloth: are civil and say that in three days we reach Chibisa, the country of the Babisa. Some have enormous[1] . . . Sleep at Chingone's village.

3 *Sept.* A mile from the shore, depth 50 feet or 8¼ fathoms: it then deepened to 10 fathoms and 12 fathoms. A rock appears above water a little south and about midway between the island and Western shore. Boazuru island is uninhabited: it seems to be one of those roundbacked masses of granite of which we have several on the western shore, which have been thrust out in a [*word illegible*] state. They look stratified and one had a dyke of basalt as a stratum. Temp. of water in bay 72°, depth 20 feet. I marched round on foot, as one white always necessary with the land party. It was a ten miles' march. Many people. An elephant tusk offered for sale, but men are the staple commodity of trade.

4 *Septr*, 1861. Much provision offered for sale. One canoe was seen crossing Lake, which here may be twelve miles. Slept at Pamalombe and in morning, with stiff breeze and a good deal of swell, I sailed her round one bay and into another, of which Zomba Mts form the N.W. boundary. Squalls come through the defiles. Water was found to be ¼ less 14 fathoms and muddy bottom close to the hills on South East side of bay: colour of water deep green. Came on with oars at mid-day to the base of jutting mountains in country of Maravi of Chirimbo. Much game in country. Hills Porphyry. Got fish called Baba, caught spawning. Most of the fish seem engaged in this at present.[2]

5th Septr, 1861. Sailed round the bold rocky promontory which we have named Cape Maclear. Found the bottom at 35 fathoms. Sent down a thermometer, but it shewed higher temperature, viz.,

[1] Text obliterated in the original.

[2] Mumbo is[lan]d, Malere I[slan]d : *Livingstone's memoranda inserted here, between 'rules'.*

79°: the surface 77°. See two islands, one near—name as above, Mumbo—the other distant, Malere. A very considerable swell on the Lake. Met two fishing canoes, one tried to escape but, when we told him we only wanted to ask questions, they desisted from their violent paddling. From them we learned that the land party, who had crossed the neck of the Cape, were at Mpande's. We passed them and slept near a clump of Palmyras. No birds to be seen on the rocky mountains except fish-hawks. The mountains come down steep to the beach. One good harbour on the Western side of the promontory, but little land.

6th Septr. 1861. Sailed in a stiff Easterly breeze about 5 miles in one hour and a half south. We see head of the deep bay, or arm, ahead of us. Ivory offered for sale last night and this morning: one of the Abisa or Awisa says his chief, Marenga, lives south of this, that he has fled from the Mabibele or Mazuite of Binda, who lives near Loangua. He and Mpzene are Zulu chiefs who crossed Zambesi below Lupata long ago.

Most of the bottom and the shores of the Lake are of a very coarse yellow sand, the bays soft limy mud.

Resolve to send back a supply of cloth to purchase ivory here by C.L. and Dr M. in boat. The lower part of Bay all shoal. Adjacent lands, especially on west side, marshy. Range of mountains behind called Molomo a nko ku.[1] Men slept behind, we at Pananyanje vil[lage].

7 *Sepr*, 1861. Sangive's vil. Boiling point water: N° 63—209.8. 64—209.9 Av 65°.

After land party came up we went on a few miles to Papembeje village. Nyanja now turns up to be the North, and people know not the Rovuma. Say they don't cross it except by going to Mumbo island and sleeping one night there, . . .[2] In the morning wind blows from South and East, and at midday calms, then blows from the North or N.E.

We are out of the line of trade. People have no guns but their bows are very long. A quarrel arose about a bow, and a boy of ten or twelve assaulted the man who had it. His mother thereupon caught and chastised him soundly, taking him off prisoner. He never once resisted her, though he had attempted to take the bow from a full-grown man. The women are far from handsome, fat and flabby. The men are tall and have higher cheek bones than usual. Bows [? made of] Molompwe.

8 *Septr*, 1861. Sunday at Papembeje. Headman Kampoto.

[1] Beneath the boiling point observations, the name is given as Molomo oa n Koku.

[2] A faintly written sentence, that seems to read ' The water is hard now '.

9th Septr. Sailed and pulled four hours—a heavy swell from East prevented us landing. Anchored in surf, and sent breakfast ashore to be cooked. Water at 2 miles from shore 5 fathoms and 7½ fathoms. A dangerous rock sticks up some five or six feet in this bay, about 2 miles from shore and four south-west of Malere. 200 or 300 people came along the beach to see us and one cripple came on his knees to indulge his curiosity. After breakfast saw a herd of elephants on the shore quite unscared by the numerous villagers all around. Our men expended a large number of balls and they seemed quite stupified, scarcely running away. One large bull was killed. Horizontal 36 in. Perpendicular 5 ft 9. From tip of proboscis to crown of head 3 yards. From crown of head to insertion of tail 4 yards. Length of tail 4 ft. 2. ½ circumference of belly 9 ft: ½ cir. at chest 7 ft 10. Height at withers 10 ft 3 in. Circumference of forefoot 5′ 1 in. The Aorta 4 inches in internal diameter and ⅛ thickness of walls of Do.

10th Septr, 1861. About a thousand people collected round us this morning, shewing as much curiosity as was manifested by the Londoners when the Hippopotamus first appeared at the Zoological.

They crowded round, especially at breakfast, but were decorous. No foreign cloth among them, and many women have the old fishing nets only to cover their nakedness. No guns except a few kept for ornament, as they have no ' Baroot '—Arab for gunpowder. They are all very bright, and so are their finely made knives, which are forged up on the hills on our West. The islands are used as fishing stations only: no one resides on them. They are covered with trees. Walked along beach to point near islands. There is a rivulet some 4 yards wide called the Sintlupe in which many [*word illegible*] are now caught.

11th Septr, 1861. A storm on the Lake this morning from South-West. People elaborately tattooed, chiefly in lines of but small beauty. Some are dotted all over. The skin is raised a little at the part. The naturally large lip is increased in size by the insertion of the lip-ring. There are but few comely countenances of either men or women. This morning we have fresh thousands staring at us. They are at war here now, and men have on the sign of mourning, namely a palm leaf bound round the head, chest or legs. They are suspicious of us and never leave their bows about. They are the longest bows we have ever seen—over six feet—and they are flattened out: it is said to be shields. One man from ' Moezi ' said that this was the object, but it is small protection only.[1] The

[1] The sentence that follows is illegible.

knot for netting is different from the European knot. It is a half knot.

There is a good deal of disease among them, chiefly of the skin and leprosy. The modes of dressing the hair are endless. This is the direction their inventive faculties seem to take.

They are well fed and we can buy plenty of fowls and eggs. Women very poorly clad.

The headman refused to allow our land party to remain with him, on pretence of not wishing to be blamed.

Went about seven miles to sleep among fishermen hauling their nets on the long sandy bay which ends at Tsenga's mountains. Land of Nkalamba seen on our East[1] of the other side. This bay has a high sandy dune all along it, raised a little higher than the land[2] inland, say 20 feet.

12 *Sepr.* 1861. We came about 7′ yesterday afternoon and slept a little south, say 1′ of the point at the mountains of Tsenga. This morning a storm from it has caused a heavy surf which detains us. There is a bar 30 yards out, on which rollers break as on the sea shore. Came on to headman in next bay called Kabango. He did not appear, though we waited ½ an hour. On leaving he came out of his hiding place but we refused to return, and went to pass the night on the South base of the hill Makombe which formed with [*word illegible*] hill a small bay in which we hope to be protected from the South West . . .[3] on to prevent water splashing into the interior. Saw case of Elephantiasis last night, and leprosy is common.

Marimba are on both sides of Lake up here. Loangua and Bua run into Lake. Rovuma is said to arise from mountains and is 4 days from the end of this Lake. This has four crossings and this is the fourth, viz., Tsenga. On rounding Mkombe we saw[4] we had another large Westerly bay before us. Crossing that we came to a sandy spit, about 8 miles off, which has a curious bay behind it. Many people fishing. Reach Luangua at the bottom of another deep Westerly bay. The Island Benje is a little East of North of us and is not inhabited. The chief is named *Thirira* if this place.[5] The island much resembles a thatched house as seen from this. People all engaged in fishing: probably this takes place annually when the crops are off the ground. They have plenty of food and cheap. A woman from the coast claimed friendship with us: she came from Chandala.

[1] So in the original.
[2] 'lang' in the original.
[3] The rest of this page is almost completely illegible.
[4] 'Say' in the original.
[5] So in the original.

The canoes in crossing go at about 3 miles an hour—or more—and take six hours to do it: consequently it may at the narrow parts be eighteen miles.

14 *Septr.* 1861. The bottom of this bay is marshy and south of us are many pools. Many mosquitoes. The boat was swamped yesterday morning by the heavy surf and received damage. To-day the rollers, which are large, prevent us starting. This delay happens daily and is caused by an East wind. We made 8′ of Lat. yesterday and the men did not reach us till this morning. Some went inland and others, fearing the Zulus, crept along shore where many pools prevented progress.

People called Marimba, far from comely or clean but very prolific, the effect of fish diet. We don't impress them with any idea of beauty either. They are ready to flee from us as wild beasts, and indeed we are often spoken of as Chirombo, game or *ferae*.

A canoe can go out from the surf long before we can, and are quite dry.

One came along the surf yesterday at a great rate, the men looking quite unconcerned, as we were carefully holding the boat's head to the sea, to avoid being wetted.

The Marimba have lines along the sides of the face, and often lines of dots on the whole body and limbs.

The Awisa—Aisa or Babisa—seem confined to a small mountainous tract West of the lower end of the Lake. They are driven by the Zulus, who once went up the East and came round the West side of the Lake and swept off all the cattle. The Marimba are in daily alarm lest they return.

After the surf went down somewhat we left at 1.30 and came a few—six—miles to a point where we were at once surrounded by many hundreds of sightseers. The wind was from the North and a very great swell with it. The name of this part of the country is *Chitanda*.

Sunday, 15th September, 1861. An immense crowd surrounded us early this morning, incited by pure curiosity. They are not rude but watch every motion with intense interest. Our tent is open at each end, but that does not suffice: they peer under the sides and a perpetual clatter of tongues reminds us of their presence. O that the gospel of the grace of God were known and appreciated by these poor people. We could scarcely hear at our prayers, though they remained quiet for a little after being told so. A line drawn on the ground ten feet off keeps our table clear at meals, as they do not cross it. . . .[1]

[1] A sentence here illegible.

We hear again of the gorge through which the road to the sea passes. One man drew the Lake as passing near to the sea. We hear of three Arab traders in two Dhows in front of us: they are buying slaves and ivory.

Many people are plaiting nets: some few spin cotton, but all are at present engaged in sight-seeing. There are few alligators in the Lake and they seldom kill people.[1]

16 *Sepr*, 1861. Thieves came by night and stole all our spare clothing and a bag of beads and one of rice. We have thus only the clothes we stand in—our worst. They undid the botanical papers and thrust in the plants and fishes, tying them up again. I have lost 2 pairs of trousers, a shirt and flannel stockings[2]—with balls—a bottle of brandy. C.L., trousers, shirts, boots, Mackintosh, etc. Dr K. Do. It must have been done by some who followed us, as some things were found in the way southward. We don't think the villagers near did it. This is the first time I have been robbed in Africa—poor comfort this. We came this morning an hour and a quarter, under double reef part of the way, and were then forced to run into a shelter, as the sea rose fast. Yesterday she could not live in it, had she tried, as the waves rose very high and suddenly. Reach Molamba about 2 P.M., having been obliged to row for some 2½ hours. This part of the coast is rocky and off the point many rocks jut out of the water, and some are only covered. The coast trends Westerly. All the people say that the Lake is narrow where we have come from but here it is broad and takes a whole day for crossing, say 10 hours. This may be 30 miles.

17*th Septr*, 1861. Saw the opposite coast this morning. It is high and mountainous. Headman says it takes a whole day to cross. Behind a hill called Chipata, on our West, we have the highest mountain we have yet seen in Nyassa. We came about six miles, but winds are very variable. North wind blows now strongly.

People came down to the beach and made many gesticulations. Thinking that they were bewailing some one drowned, I put off again, but they followed till we did go ashore.

Sandstone now appears.

Came in two hours in a very heavy sea. Wind N. Pass night near a hill 1′ South, at point called Sami. People had to cross a river about 2 miles south of our sleeping place. It is called Chia. We

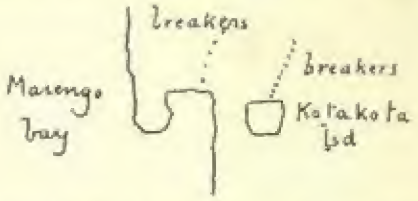
[1] Here Livingstone gives four sketches of native fashion of hairdressing: they are too indistinct for reproduction.

[2] 'stockings', an interlinear addition.

are at the mouth of another not flowing at present, Chamimbe Rt.

We hear that the slaving party sent off their dhow to-day full of slaves and ivory, and one remains to carry on the business. The people yet have no idea of the end of the Lake, but say Rovuma does not come out of it. Others declare that it does and drew a map of it on the sand, and that a boat could pass out of the Lake into Lovuma or Louma, as they call it.

18 *Sept.*, 1861. Lake trends Northwards almost entirely. This morning we have come to a low sandy isl[an]d 1′ from shore, covered with reeds, many palm trees which look like dates or palm oil. Possibly they are Shuare with stems. Round the point is a deep bay in which Malenje lives but, between island and point, the water is but one fathom and heavy breakers roll in from the North, leaving but a small passage off the point into the bay. As



we should have been broadside on in going through it, I went over towards the Island, then away North. Water formed into very large waves and almost broke before we got through the circle of breakers formed. We went on and hoisted our colours to let our people see us, as the sea was very rough near a point. We went in, but the surf prevented our landing. Some people coming out in canoes with the greatest ease, and we saw them all afternoon, going about in the surf, never minding which way the canoe passed it, sideways or thwartways. No seas were shipped. Our opinions of these craft are very much modified by what we saw and have seen of their conduct in the surf. Our boat would have been swamped, had we gone where they did.

On leaving, a river called Kaombe appeared and, a goat being demanded for passage, our people fired to us.[1] We went round a line of surf a mile out, landed the luggage and went back and ferried them over. We could not have gone in without being swamped when loaded. Our men on shore saw the huts of the slave buyers—men of colour or Moors. They left with a full cargo yesterday morning. Their people still continue trading.

[1] Apparently fired a signal shot.

19*th Septr*, 1861. We are now in Lat. 12° 52′ 46″. We sailed and pulled about 6 miles this morning, then landed to warm our breakfast and were caught by a swell and surf which made us fain to land our luggage and beach the boat. There is almost 300 yards of shoal water round most of this part of the coast, and here heavy rollers arise. All the bays seem formed by the beating of the North wind on the sandy shore and so they are hollowed out and open to the North. They seem to have cast sand round their points too and, as at Khotakota, made an island.

We came on a few miles after we again launched her and the men crossed Sirwa in canoes. The people have raised tattoo's now and in wavy lines. The women hullilooed us at our sleeping place, but many fled when only spoken to. From Tsenga onwards provisions are dear. Near Kaombe not to be had, even at extravagant prices. They don't care to sell: have plenty of bark cloth and fish, and are independent.

20*th Septr*. The wind began to blow early from the East, so we hastened into the boat and went out. Believing that outside the surf we should find smooth water, we pushed on, but in ¼ of an hour the sea rose so that we could neither go back nor forward. We anchored, and rode out the storm. The whole bay was filled with breakers, and it was all the boat could do to mount over the waves, which often broke outside of us. A dark cloud floated overhead and the wind seemed connected with it, for not till after eleven o'clock, when it dispersed, did the wind cease. It went round from East to North, and one hand was employed constantly in rowing her head round to the waves, the wind driving her round broadside on, and one wave would have sank her. The men all became seasick.[1] . . .

The beach here is under a cliff of 50 or 60 feet in height, composed of a light coloured sandy clay. Many trees and shuare palms, washed away, shew that the Lake is eating Westwards: here more shells than usual. People very savage like. The tattoo is raised more than we have seen. Ladies' dress approaches that of Londa. They use cassava much, and many women are large and stout in person. Bark cloth the general clothing, and few ornaments. We are again in the land called Pachankondo, as last night Kowirwe Mt in front 358. People say that they cannot cross the Lake here, but this is doubtful.

21*st Septr*, 1861. . . . Went about 3 miles and an East wind blew so strongly we were fain to run in, lest it should become, like yesterday, dangerous. People here seem to live chiefly on cassava

[1] Here follows another page all but entirely illegible.

roots. We are at the mouth of a stream, but it is dammed up by a bar of sand and no water flows except by percolation. It is deep inside and has lotus in it.[1]

22 *Septr*, 1861. *Sunday.* A high East wind blowing this morning. It detained us here, after coming about four miles yesterday. The natives on seeing the sail, say, 'Aye, we have no Barimo', in reference to their forefathers not teaching them to use sails. When they saw us in the surf they remarked, 'They perish'. The old women shew as much curiosity as any one.

On all the sandy shores the water and wind have heaped up a ridge of some ten feet of sand: behind this there is often a marsh, as this same ridge forms a bar to the rivers entering the Lake.

A small plant like[2] is washed up from the bottom of the Lake, and collected on the shore: this, dried and burned, yields some salt which the people use. Cotton has been brought for sale, and disappointment felt that we did not purchase it. We say that a big ship will come and buy it. Slaves too are offered for sale. O when will Christ's holy gospel enter into this dark region! Let thy kingdom come.

23 *Septr*, 1861. Came 1½ hour, or about 5 miles, to the shelter of point at R. Loangwa. Then on two miles. Then an elephant was shot by a Senna man. . . .[3]

[25*th September.*] . . . 14.25–12.25 2.00. 120 miles up from mouth of Shiré.

Aneroid Bar. 28.2 at 2 P.M.

People gone to look after a wounded elephant; surf keeps up, so here we remain overnight. Elephant not found: grass too long. I have observed several bones lying on the banks of the Lake completely fossilized. Yesterday the thigh bone of a buffalo was seen, and the structure is stony. The mass [is] very heavy and sticks to the tongue.[4] They are just like those we found on the Zambesi Delta.

26*th Sept.* High wind with black cloud overhead keep us ashore.

An[eroid] Bar. 28.3. Therm. 79° 8 A.M. A. Bar 28.2: 85° 2 P.M.

Wind continues high but it has gone round to the North. We are therefore obliged to remain.

[1] Here Livingstone gives two pages to slight pencil drawings named as follows: Marimbo, a native pipe, a pipe and pillow combined, a knife, short spear, long spears, bow six feet long, arrow to kill birds and two sketches of native women, Malonda nkoku.

[2] A space left vacant in the original.

[3] A page containing the entries for September 24 and the first part for September 25 is illegible: it almost seems as if the text had been erased.

[4] The sense is obscure.

27*th*. West wind took us on about 2 hours, then South round to East, when we went ashore about 3′ South of the mountain Korirwe in country *Mopinda*. People engaged in fishing extensively.

A species of valisneria grows on the bottom of the Lake. It is detached by the winds and floats about, or is cast on the beach. This is dried and burned, as it contained a sensible portion of salt. May the same abstraction of salt from Lake Tanaja not account for the freshness of that water?

The Palm tree which yields the oil of commerce, or a smaller species of it, found here. The nuts are not half the size of those on the West coast.

Land party cross the Luambadzi and saw very many of the dead bodies of those who were killed by the Azitu last month. They destroy men, women and little children, and select only the boys and girls of about 10 years of age. The people had fled into the water and there perished. This was at Luambadzi Rt. We spend the night at Morōe, Lat. 12° 11′ 23″ South.

28*th*. Pulled a few miles. People cover the shore, fishing. Huts temporary: they are planting cassava on hill sides. All fear us. They pour a boiling solution of an acacia tree on the net as medicine to catch fish: possibly to tan it and take away the smell of dead fish.

Stood across the bay and went 15 miles with a gentle breeze. Came to people more smeared with red clay and fat. They have a dense forest in which the Mazitu are afraid to enter for fear of the arrows. They had caught two and put their heads on a tree. The bodies were burned, and we slept close to the place. Others are placed farther down.

Asked how far Lake extended. 5 days to where it is narrow. One branch then goes into Rovu (Rovuma) and another turns westwards.

29*th Septr*, 1861. Spend Sunday at or near village of Chimbano. Women have Londa dress. A chief called Marenje from the bay below brought us a present: so did Chimbano.

30 *Septr*. Went round point of Makusa and entered a large bay. The entrance to this, or just beyond Makusa, is a nice place for a residence. We did not proceed far, on account of a heavy Eastern swell that set in. Landed and were surrounded at once by hundreds, who say they are collected here because the Mazitu have killed all infants. Hear that they are on the Luenda in the Bottom of this bay, which is called Mphambe. The Rofu comes into the Lake from the West where it rises out of a marsh and is very large, and at that part, where it joins this, Nyassa is very small. One drew it

on the sand as passing through this, and said that a large boat would pass from this into Rovuma and thence to the sea. They know not the cataracts. People here look starved. Sand here fine. Coast in many places rocky. Ukuso hill. On Dr K. remarking that if we could get a hold of one of the Mazitu head chiefs we should get on with him, C.L. said that it was risking the lives of these men to take them on. Dr K. said it was a nuisance to have them with us, as they could not escape, etc. It is evident that personal fears are at work. C.L. asked at Chitanda, where we were robbed, 'if we were not going to turn? it is not well to go on in our present destitute condition.' The Mazitu are said to be on the Lucia, and to be rich in cattle and goats. One day inland is the limit of canoe navigation, but Rofu is very large and long.

1*st October*, 1861. About five miles above our sleeping place we came to the R. Lucia—water brown. It is about 40 yards wide and rapid: is said to come from South-West. A dead man floated down: was killed by Mazitu. Mullets caught in it. Coast rocky and with sandy bays.

Last night a man brought a small botanical box which he said belonged to a white man who came to the other side and bought slaves. He went some days with him into the rocky pass. It probably belonged to poor Roscher: no name on it.

A man gave the information last night that Rofu comes from the West and falls into the Lake, that Rovuma passes close to it and the boat could be put into it by being lifted only a few yards. It probably communicates in the rainy season, and this will account for the statements we have heard. On the other side of this a man leave[s] the Lake and travels four days to reach the Rovuma. All agree in saying that the Lake is small where it and Rovuma comes into contact.

Went on about 5 miles more and came again to large population —Mankambira.

2*nd Octr*, 1861. Came on about 3 miles but a furious North wind sprang up, and that, with a heavy swell from East, compelled us to go ashore. The headman where we slept last night sent a man after us to invite us back to eat a goat. He was at a distance, and his wife having given one of our men provisions, I gave her a handkerchief. This was sent to him and induced him to be civil. Country all round us desolated, and skeletons of the inhabitants lying everywhere. It has been well cultivated, and many bananas shew the taste of its former inhabitants. Only a few fishermen now cower among the rocks of its dangerous coast.

3 *Octr*, 1861. Land party afraid to go on the mountainous tract

before us without one white man with them, as they expect to be killed by the Mazitu. I went, after instructing the boat not to go far. A bay lies round the point. Go to that and you will see us. We went along shore for a mile, then struck over a ridge which divides the bay, but, going too far inland, were unable to get to the bay till past noon, and then saw the boat going out of it. Excessively difficult country—paths purposely destructed, skeletons lying in many parts. On going up one ridge, four men were on the top and asked João, who was on the opposite one, what he wanted. Without answering, he took to his heels and told the others that the Mazitu had come to Moloka and Lemerging:[1] they looked at him, bow in hand, ready to shoot, but getting a glance at me, they bolted at once. Poor fugitives, living on the remains of cultivation which last year sprang up spontaneously. We could not make up to the boat, and this morning it went on round another point which we cannot pass till to-morrow. I killed one

4 *Octr*, 1861. of the goats as we have no provisions with us, and none to be had in the country. Cow itch very annoying. We went up and down ridges, 500 ft high, perpetually all day. Yesterday and to-day we have been doing the same.

Seven Mazitu came to us and beckoned us to approach: Moloka and I went. They were very much afraid of us; would not allow us to come near, though we were unarmed and they were well armed. They asked a goat or something, to shew their chief that they had met us. I offered a knife, but this they would not accept. They were not true Caffres, but captives made into Machaka.[2] The young [men] were impudent, demanding a goat. This was refused. They started back at the sight of my note book, as it were a pistol. Would not take us to the boat. We slept on a knoll without fire.

5th Octr. Men say that they are tired and wish to turn. I climbed a steep hill alone, they refusing to move on the opposite side. I can see no boat yet. Agreed that all the men should turn, except Moloka and Charley. Gave them a goat. On descending the great height to the Lake, we found a canoe on the boulders, and we intend to embark in it as soon as the surf goes down. People here employ torches made of bundles of laths to attract the fish.

The skins of the natives are very much more sluggish in function than that of the whites. This is seen in the growth of the hair. It takes five times as long as that of the whites. This is a benefit to them with their scanty clothing. The fishermen of Nyassa spend much of the night at their work wet and naked. We see herpes on

[1] The sense is obscure, and punctuation wholly conjectural. [2] Warriors.

the mouths of many, as if they were subjected to colds. It would be fatal to Europeans. The idea of securing health by conforming to native modes of life is erroneous. The son of Mungo Park tried to secure health by going about Sierra Leone with a sheet on him only, after the manner of the Fulas, and soon terminated a life which might have usefully and honourably been spent in Africa. He seemed to have no idea of the nature of his skin as compared with the native one.

6th Octr, 1861. We launched the canoe last night, but it was so bad as to be nearly upset every time the goat moved, and it soon filled with water from leaks besides. I marched on shore and Charley and Moloka went on till dark, and we spent the night without fire, so as not to be seen by any people about. Charley offered me his cloth, but I lay as I had hitherto done, in my clothes, and was, for the first time, cold. This morning went on in same style to round the rocky spur of Tinde Mtn. After an hour's walk saw the boat coming back. I asked what made them run away with the boat. They had imagined that I had gone by the inland path without breakfast, though I had ordered them not to go far. We came back to Mankambira in the evening, accompanying our three days' land journey by one in the boat. Soundings were taken in the bay beyond Mankambira's at 100 fathoms. We tried further out. No bottom at 116 fathoms—line broke.

The coast beyond us is bold and precipitous to a greater degree than that through which we passed. Large mountains seen in front, bearing from Mankambira's 2nd sleeping place 75°. Most westerly p[oin]t called Komasa, another Mosambwe about 30 miles ahead. Bearing[1]

Yesterday in coming along we met a brownish cloud of very minute insects with wings. They seem to be swarming and, I think, are the same as are found in abundance on fig trees. We have often mistaken them for clouds of smoke coming from other side of the lake: they resemble them exactly. They alighted and died: probably Ephemeridae.

We came to breakfast at Mankambira's and I gave a cloth I promised if he should give the people food. He is intelligent and like a chief. Says Rovuma is not near Lake but as far off as Loangwa (50 miles) is from him. He mentioned that the Lake does not end, but turns about—i.e. one goes round with it, coming back to the point from which one starts. He named the different stations beyond:

[1] Here Livingstone inserts a rough sketch map, apparently of the Nyasa shore from 'Mosambwa' to 'point near sleepin[g] place above Tondo Hill'.

1. Sisya = one day; here the hills end.
2. Kondowe = one day.
3. Mpoto = one day.
4. Shungo = one day.
5. Matete = one day.
6. Mapunda, about opposite

7. Chisanga
8. Nkalamba

} these are S.E? of us, say four days of 15 miles each. This would give 60 more of Northing. We were then in 11° 40′ S = 10° 40′

Length = 14.20 = 220 miles.
3 40

The chief of Sisya, a native, captures the cattle of the Mazitu. His name is Chikamba. The boat saw some fugitives from other side of Lake living on rocks—probably fled from the Iboe slave trade, and some whose tongue was different from aught heard before. One woman scolded the men for not taking the goods of the boat: 'Were she a man, she would take all'. Having no provisions, and no prospect of buying any—a lawless front[1]—and it being impossible to take the men with us, we considered it prudent to return. A party of men is indispensable for letting the objects of the visit known, for defence and for aid in case of any accident befalling the boat. With a boat's crew we might run on a good way, but wind must be fair and no accident or mishap occur.

7th October, 1861. Left Mankambira after breakfast and went on to a bay North of Makuza hill. People became very impudent, imagining that we had been obliged to flee from the Mazitu. At last, during our meal, some sat close to us, making remarks and laughing at everything. Masega spoke to them and they pointed their spears at him. This was not to be borne, and the Makololo made a general rush at them, mauling right and left with their sticks. They were 'slightly elevated',—threatened to attack us by night, which is the mode of warfare all arrow-weaponed people adopt. A battle axe stolen during the fray was brought back as an excuse for seeing how we lay. We burned off the grass around and set watches. I took the first, Dr K. 2nd, and C.L. third. At eleven, when the moon was down, I shifted all the camp to a sleeping place under a dark shady tree, leaving tent and grass of the men's beds standing: the goods all in the boat, the guard under its lee on the bank. About 1 A.M. a man came with his bow and arrow and saw that we had shifted. Dr K. simply looked, ready to act if required. He seemed to have gone off and informed the others

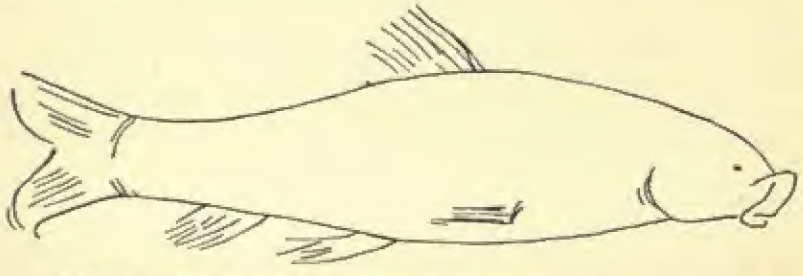
[1] So in the original.

that we were on the alert, and none came. One of the men that annoyed us was the [*word illegible*] of Dr Roscher's[1] botanical box.

8th Octr. Came to Marenga's, and soon saw him coming with a large present of beer, porridge of cassava meal, cassava root, ground nuts and a fowl. He wished me to stop all day and drink with him. On my declining, he sent off and got more cassava root, millet meal, rice, bananas and beer. I gave him a good cloth and he seemed anxious to please, for, looking at his iron and copper bracelet, he asked if we had any in our country and, on my saying 'no', he took his off and put it on my wrist; then called his wife to give me another. We left much pleased with him. He is the best chief we have seen for a mission, and his country extends from Dambo to beyond Malenza. Spend night some five miles above Kowiriwe Mountain. A fierce gale rose during night and so did the sea in a few minutes. This would render the project of measurement by our boat dangerous.

9th Octr, 1861. Waiting till sea goes down. The little insect which flies like clouds of smoke on the Lake is collected and eaten—the smallest locust known, though quite a midget. It is called Kungo. People here all clothed in bark of trees: make use of a poison (pungwala) to poison fish.

As sun declines, groups of natives assemble on the beach, waiting for the surf to cease. The nets have been dried on the sand and mended, then collected in bundles on two poles. The long coil of bark which is used at each end is carefully laid down, and the canoes lie on the beach. Still too hot not to make shade agreable: the most part of the people are in the shade of trees. This is the time for a gossip, but as soon as they can they begin to lay and draw nets; often extending their toil far into the night. Two boys have been at work with their little nets all day: one gave me a hand full of his small fry, of which this is one. We went on, when the surf ceased, about 5 miles; then spent night about a mile north of the centre of Kowirivi.



[1] For Dr Roscher see Livingstone's *Narrative*, pp. 123–4 and 399.

10*th Octr*, 1861. Went with a light breeze down to the bay West of the Loangwa sands.

11*th Octr*. Stretched across the bay towards Loangwa, but met by stiff Eastern breeze: obliged to go ashore. In afternoon got on a few miles to point North of R. Loangwa, where we got the hippopotamus and elephant. We tried the hippo again, and one I shot went down as if stone dead, but we did not get him. We are out of provisions.

12 *Octr*. A very high N.E. wind keeps us ashore, though we have no food. Men off to hunt elephants. Mosiri killed one at the Loangwa. We went to Loangwa mouth in afternoon and remain for Sunday.

13 *Octr*, 1861, *Sunday*. At mouth of Loangwa a large hippopotamus shot by me on Friday: found this morning. We have got a plentiful supply of meat of which we stood greatly in need. Opposite shore seen this morning at sunrise.

14 feet from tip of snout to end of tail, 3 ft 6 in. high at withers: large old bull hippopotamus.

14*th Octr*, 1861. Got ready to start this morning but a strong East wind soon roused the sea, so as to prevent us going out.

Temp. air, 93° 2 P.M. Boiling point 63 = 210°

64 = 210° = 1181 ft.

About 2 P.M. the sea moderated and we went down to Danger Bay. An Easterly breeze sets in at sunset. This is the most dangerous side of the Lake at this season. Pass night under high cliff.

15 *Octr*, 1861. East wind keeps us ashore.

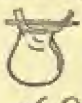
6.30 A.M. Aneroid 28. Air 74°.

No, 63. Boiling pt 209.8

„ 64 „ „ 209.9

Air 75° = 1257 ft.

Chiwo, a torch made of split bamboos: to it great numbers of small fry of pike, ' usipa ', congregate and are swept into the boat.



A single-noted Rimba placed over a pot. Name of headman Nsinga. We got on in afternoon without wind to round Sirwa point.

16 *Octr*, 1861. Early this morning we were awakened by a thief making off with two bags belonging to C.L. Possibly is[1] by the people of these Arab slave traders. A heavy sea from North wind compelled us to beach boat again till about noon, when we sailed to Kaombe river. The bays are generally shoal, that is, six to ten fathoms.

[1] So in the original.

R. Kaombe said to have two mouths: coast sandy and marsh with Eschmomena behind. Kaombe 60 yards wide, and deep: hippopotami stand in it. People have all heard that we have been robbed. This is not in our favour.

Luapula and Ka Bemba rivers. A party has come from them with ivory for sale from Katanga. They wish to buy cloth. They have native copper rings with them of their own manufacture. They speak of Luapula as flowing N.E.!

17 *Octr*, 1861. South wind blowing hard keeps us again ashore. Two Arabs came to see us. They are from Katanga, where they have been living for 14 years. They say that they have come down to Nyassa to buy cloth and will return to Katanga, that Luapula flows into Lake Muela or Moela; that Tanganyika flows into the sea at Shamo; that Ben Habib has gone back to Sekeletu's with the Makololo carrying 3 guns, cannons,[1] 50 barrels of powder and 57 muskets. He has been stirred up by our consul at Zanzibar. There is plenty of malachite where they live at Katanga.

18 *Octr*, 1861. Still at R. Kaombe. We tried the sea this morning but were forced to return to the river again. Sky covered over with clouds and other side of Lake appears quite clearly. This portends more wind. It is from South, and rains will soon begin.

19*th*. South wind still, but we get out and, passing up Marenga's bay, found that the Dhow had left yesterday. We sailed to the N.E. point of the bay, then pulled round to a lagoon, Chisote, near Sami Sani hill. Bought some good fish called Samba. Pulled in the afternoon to our sleeping place 1′ south of Sani hill. Lat. 13° 3′. Other side seems 20′ only.

A mass of sandstone is interposed here among the usual old chrystaline rock. It dips to the South, angle 45°.

Native children are all taught to hold on to the mother's back by putting the legs round to the [*word illegible*] process and the hands under the armpits to the pectoral muscle, the fingers reaching to the fossae below the clavicles.

20*th Octr*, 1861, *Sunday*. Obliged to go, from want of food, and to embrace every moment that the boat can live in the sea for pulling against foul winds. A man reports Rovuma to be five days from opposite hills, and country level thereto. Reached Molamba, but could get no food.

Sea smooth as glass: pulled across first bay to a clump of large trees. With North wind reached Isonga under Refu Mt. . . .

22*nd Octr*, 1861. They cross here to the opposite low shore in about six hours, and report the Rovuma as running parallel with the

[1] 'Cannons' is added above 'guns'.

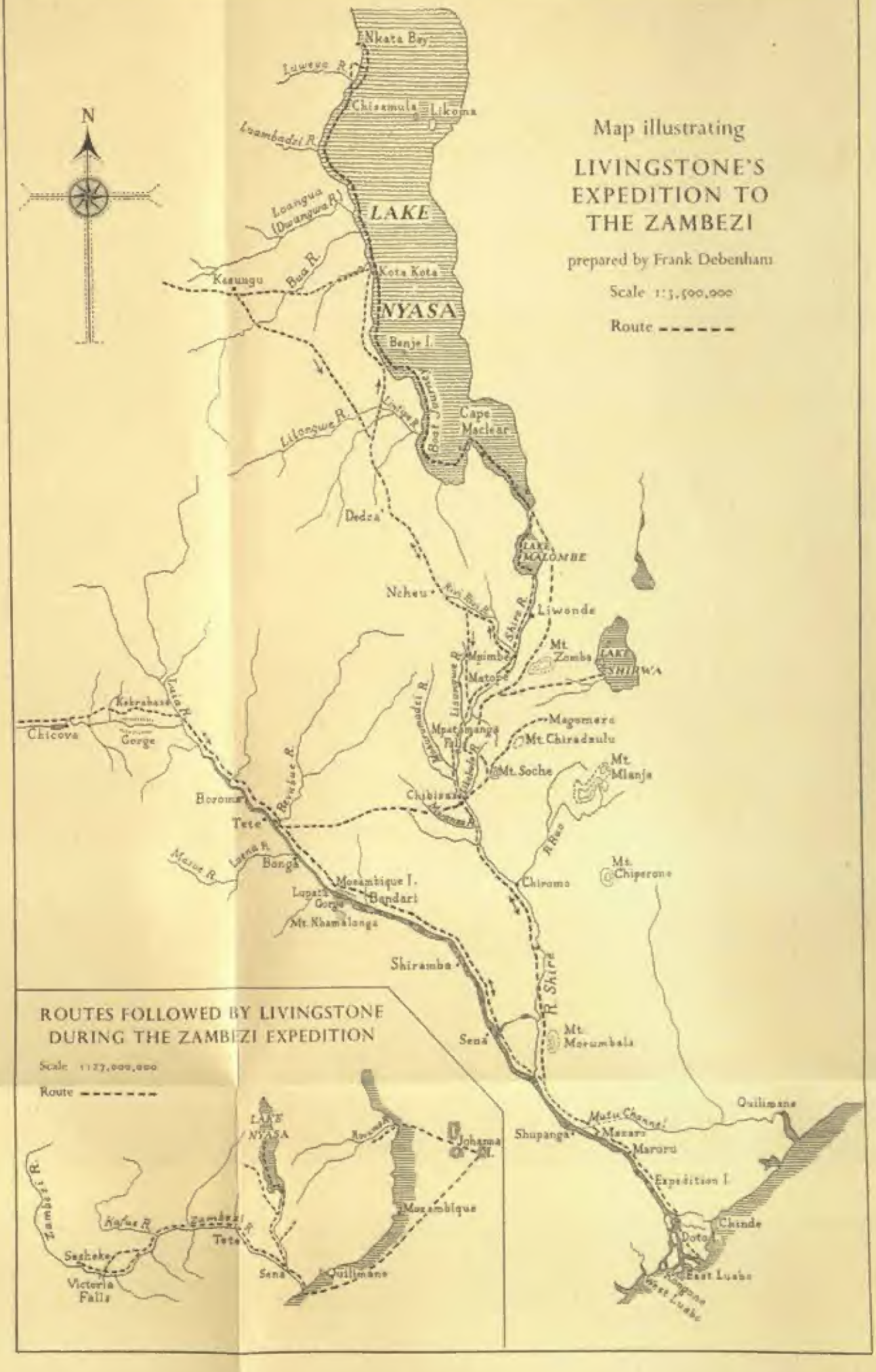
Lake, and North here, not one day distant. Again, that it is 10 days distant and forms a large river by the Liende joining it. Lohuma is the name it passes by here. We went down to Tsenga and men came up in evening.

23*rd Oct.* Went down to sleeping place of 11 Sept. to breakfast and thence [?to] the Lintipe to spend night.

24 *Oct.* Men went off, without telling us, to kill an elephant, so we went off when wind was fair and reached island Mumbo. Got into a snug little boat-harbour on North side. Island covered with dense forest.

25*th Octr.* Across from Mumbo is[lan]d to Maclear's harbour, the best we have seen, as it protects from all winds except N.W. Stopped at a magnificent fig tree, the burying place of the inhabitants. Came through an opening Eastward in which there is but a boat passage. Went to bay N. of Pampope and spent night. Heat excessive; affects health and appetite; goes through one.

26 *Octr.* Across to Pampope, then pulled some 8 miles. People sell nothing. Came at last with a breeze to first sleeping place 2′ up the Lake from Senre.


Map illustrating
LIVINGSTONE'S EXPEDITION TO THE ZAMBEZI
prepared by Frank Debenham
Scale 1:3,500,000
Route
N
Nkata Bay
Lwewe R.
Chisamula
Likoma
Luambadzi R.
LAKE
Loangwa (Luangwa R.)
Kasungu
Bua R.
Kota Kota
NYASA
Benje I.
Lunsemfwa R.
Lilongwe R.
Dedza
Cape Maclear
LAKE MALOMBE
Ncheu
Liwonde
Shire R.
Mt. Zomba
LAKE SHIRWA
Mpimbe
Matope
Kebrabasa
Chicova
Gorge
Luia R.
Lisungwe R.
Mpatamanga Falls
Magomero
Mt. Chiradzulu
Mt. Soche
Mt. Mlanje
Ruo R.
Ruvubue R.
Boroma
Tete
Chibisa
Mazoe R.
Lena R.
Bonga
Mozambique I.
Bandari
Lupata Gorge
Mt. Khamalonga
Chiromo
Mt. Chiperone
R. Rua
Shiramba
R. Shire
Sena
Mt. Morumbala
Quilimane
Mutu Channel
Shupanga
Mararo
Marouru
Expedition I.
Chinde
Doto
East Luabo
West Luabo
ROUTES FOLLOWED BY LIVINGSTONE DURING THE ZAMBEZI EXPEDITION
Scale 1:27,000,000
Route
LAKE NYASA
Rovuma R.
Johanna
Mozambique
Zambezi R.
Kafue R.
Zambezi R.
Tete
Sena
Quilimane
Sesheke
Victoria Falls